EDUCATIONAL FILM CATALOG

From the collection of the



San Francisco, California 2006

INTERNATIONAL FILM BUREAU 59 East Van Buren Street Chicago, Illinois

DIRECTIONS FOR USE

The arrangement is in accordance with the Dewey Decimal classification. An Outline of the classification will be found on page viii which will serve as a table of contents.

Title: The title of the film is given as listed by the producer. If a film is known by other titles cross references are made in the index to the title given.

Length: Length is given in minutes when obtainable. Otherwise number of reels is given.

Width: Width is given by the figures 16 and 35 and the abbreviation "mm" is omitted as our collaborators agreed that it was unnecessary.

Sound: Sound films are indicated by the abbreviation "sd"; silent by "si".

Stock: For the 35mm films inflammable is indicated by the abbreviation "f" and safety stock by "nf". Since all 16mm films are on safety stock these abbreviations have been omitted in the descriptions of these films.

Price: The price given is usually the sales price. However, if the film is for rent only the word "rent" has been used before the price to indicate this. "Loan" instead of price is indicative of a film sent free except for transportation charges.

Date: The copyright date is given when it was obtainable but in some cases the release date is given instead. A date followed by a question mark (e.g. 1929?) means that the date is probably the release date but definite and conclusive information was not obtainable. "Prior 1927" was taken from information given us by the American council on education.

Producer: The producer or authorized distributor given is the one now owning or having access to the negative of the film. A list of producers is given following the Index.

Distributor: If your local rental distributor does not have the film you want consult the producer for nearest source.

Guide: "Guide" is used to indicate the guide for the teacher with which most films prepared for educational purposes are accompanied.

INDEX

The second part of the Catalog is arranged alphabetically. All films included in the Catalog can be found here under title and subject.

KEY TO SYMBOLS

min	minutes	el	elementary
si	silent	jh	junior high
sd	sound	sh	senior high
f	inflammable	С	college
nf	safety	trade	trade school

Guide Teaching help

Standard Catalog Series

STANDARD CATALOG FOR PUBLIC LIBRARIES, 1934 First annual supplement, 1935

EDUCATIONAL FILM CATALOG

FICTION CATALOG

New edition planned

CHILDREN'S CATALOG, 1930

Fourth annual supplement (cumulated) 1934

Fifth annual supplement, September 1935

Standard Catalog for High School Libraries, 1932 Third annual supplement (cumulated) September 1935

Song Index

SONG INDEX SUPPLEMENT

CHILDREN'S SONG INDEX

COSTUME INDEX In preparation

EDUCATIONAL FILM CATALOG

A CLASSIFIED LIST OF 1175 NON-THEATRICAL FILMS WITH A SEPARATE TITLE AND SUBJECT INDEX

COMPILED BY
DOROTHY E. COOK
AND
EVA COTTER RAHBEK-SMITH



NEW YORK
THE H. W. WILSON COMPANY
1936

Published May 1936
Reprinted October 1936
Printed in the United States of America

PREFACE

Because educators seem more appreciative of the usefulness of the film in education than ever before the H. W. Wilson Company now offers for films the same service that it has been offering for book selection for many years thru its Standard Catalog Series. The Educational Film Catalog is a selected list of 1175 non-theatrical films, classified, annotated and graded, and contains the necessary information for obtaining the films listed. It is not confined to strictly classroom films but includes those which are available for all non-theatrical uses, making this Catalog valuable to clubs, churches and various educational institutions as well as to schools.

Form of Catalog. This Catalog follows the form of the Standard Catalog for High School Libraries in that Part I is a classified list and Part II a title and subject index.

1. Classified List. The films are classified according to the Dewey Decimal classification. In this section is given the full information for each film: title, length, width, whether sound or silent, whether on inflammable or safety stock, sale or rental price, date of release or copyright, producer or authorized distributor, class number, annotation, grading and a teacher's guide, if any. Tho the Dewey Decimal classification was followed it was necessary to make simplifications and modifications. In this the classification in the Standard Catalog for High School Libraries has been followed whenever possible. Each film is annotated in order to make the selection of the proper film easier. When possible the annotations are quoted. As films are not so well reviewed as books, most of the sources of the annotations have been the lists from the various state visual instruction departments. The indication of such sources will show the user where the film has been found useful. Most of the grading indicated is from information given by our collaborators when voting on the films to be included and while they have been used successfully as indicated may be found useful in other grades as well.

For further explanation of each entry see Directions for Use.

2. Index. The index includes in one alphabet, the titles, subjects, and, if important, the authors and actors. The classification number is given so that by referring to Part I full information about the film may be found. Subjects have been assigned freely as educators have expressed their belief that even a few feet of film on a specific subject is valuable. The subjects given are those with which the film deals—not the particular courses in school in which they may be used. These often overlap.

Method of Compilation and Selection. This selected list is based on the advice of many educators, on a comparison of selected lists of films and on consultation with producers and others interested in non-theatrical films. The lists from 22 state visual instruction departments were cut up and titles mounted on cards. Besides these lists titles furnished from the catalogs of nearly 500 producers and distributors were considered. Tentative lists containing about 3500 titles were sent to educators for votes and suggestions. When these lists were returned the votes and suggestions were transferred to our cards. Altho the majority of films were selected from advice so obtained, others were added which were found on three selected lists including those of various states. No attempt was made to keep a proportion between classes consistent. It is regrettable that

undoubtedly many excellent films are omitted because they are not known. The compilers viewed a number of films and included a few which seemed to fill a lack in the Catalog. Films available on 35mm inflammable stock only were omitted. Some films made for advertising purposes have been included when the votes of our collaborators indicated they were useful for classroom work. Those preferring not to use such films will be able to recognize them by the producer's name. Where that does not serve as an indication a note to that effect is given. A number of films are included even tho old because they are apparently the best on the subject available. Producers may well use this list as a guide to their future production because it indicates the present deficiencies in certain fields.

No attempt has been made to indicate the physical condition of the film or

its value from artistic and technical viewpoints.

Future Plans. While this Catalog is admittedly far from perfect, it is planned to revise it in two or three years. At the present time it is not possible to compile a well balanced list because (1) many suitable films are not yet available for the non-theatrical field (2) there are so many films about which very little advice is obtainable and (3) revision of many films now available is needed to make them up-to-date. Supplements to this Catalog will be issued regularly. In these supplements it will be possible from time to time to include films which should have been in this Catalog but had to be omitted for one of the above reasons, and also the best of the new films.

Acknowledgments. The compilers and the H. W. Wilson Company are deeply grateful to the many educators and visual instruction experts, especially to Robert A. Kissack, Jr., who so willingly gave their advice and cooperation. A list of those who checked the lists and helped in many ways is given following

this preface.

Especial thanks are due for the information secured from the educational film survey jointly conducted by the United States Office of Education and the American Council on Education during the winter of 1935-36, wherein film owners throughout the country listed data about their films on special Film Catalog Cards. This film survey is one of the preliminary projects in connection with the establishment of an educational film institute, which is being sponsored by the American Council on Education.

Thanks are also due to the producers who answered innumerable questions and cooperated in sending us films for previewing. Alice Kurz helped in the

clerical work.

April, 1936

DOROTHY E. COOK EVA COTTER RAHBEK-SMITH

COLLABORATORS

The compilers gratefully acknowledge the assistance so generously given by the educators named below who have checked our tentative lists and shown their interest in this Catalog in numerous ways.

- J. L. Appenzellar Supervising Principal Wyomissing, Penn.
- B. A. Aughinbaugh
 Director of Visual Instruction
 Department of Education
 Columbus, Ohio
- Mary Beattie Brady Religious Motion Picture Foundation New York City
- Robert Collier, Jr.
 Director of Visual Instruction
 South High School
 Denver, Colorado
- Fannie W. Dunn
 Professor of Education
 Teachers College, Columbia University
 New York City
- Eleanor M. Dye Teachers College Library Columbia University New York City
- Margaret R. Greer Librarian, Board of Education Minneapolis, Minn.
- J. E. Hansen Chief, Bureau of Visual Instruction University of Wisconsin Madison
- Samuel I. Hicks
 Supervising Principal Pearl River High
 School
 Pearl River, New York
- John A. Hollinger Director, Dept. of Nature Study & Visualization Pittsburgh, Penn.

- Robert A. Kissack, Jr.
 Director of Visual Education
 University of Minnesota
 Minneapolis
- H. L. Kooser
 Visual Instruction Service
 Iowa State College
 Ames
- F. Dean McClusky Director, Scarborough School Scarborough-on-the-Hudson New York
- Mrs. Charles Joe Moore Chief, Bureau of Visual Instruction University of Texas Austin
- Grace Fisher Ramsey Associate Curator American Museum of Natural History New York City
- Paul C. Reed Board of Education Rochester, New York
- David E. Strom
 Board of Education
 Minneapolis, Minn.
- Joseph V. Sullivan
 Visual Instruction Department
 Macombs Junior High School
 New York City
- Max P. Vosskuhler
 Director, University Extension Division
 University of Arizona
 Tucson
- George Zehrung
 Director, National YMCA Motion Picture
 Bureau
 New York City

Outline of Classification

The following outline gives only the classes used in this list. For discussion of alternative places see notes at beginning of classes

	000 General works			500 Science
070	Journalism		510	Mathematics
	100 Philosophy		511 513	Arithmetic
136.7	Child study		520	Geometry Astronomy
170	Conduct		530	Physics
172.4	Peace and war		533 534	Air Sound
173	Family		535	Light
	200 Religion		535.8	Practical applications. Lenses
232	Jesus Christ		536 537	Heat. Fire Electricity
264	Mass		537.5	X-rays
266 290	Missions		538 539	Magnetism
290	Religions Mythology		539.7	Molecular physics Addioactivity
			540	Chemistry
	300 Social sciences		550 551	Geology Physical geography
301	Sociology		551.2	Earthquakes. Volcanoes
311 320	Statistics Political science		551.3	Erosion
323.6	Citizenship		551.31 551.36	Glaciers Coast changes
325	Immigration		551.37	Aerial erosion
326 330	Negroes Economics		551.4	Surface features of the earth
331	Capital and labor		551.44 551.48	Caves Rivers
331.2	Wages		551.49	Ground water
331.4 331.8	Women in industry Laboring classes		551.5 551.9	Meteorology
332.4	Coins and coinage		553	Agents of geologic work Economic geology
332.6 339.4	Stocks and stock exchanges Saving and thrift		553.5	Building stones
352	Local government		553.6	Earthy economic minerals. Asbestos
353	United States government		560	Paleontology
355 359	Army Navy		570	Biology
369.43			571	Archeology. Prehistoric and prim- itive man
370	Education		573.4	Anthropogeography
370.1 371.26	Theory of education Educational measurements	and	574 580	Physiologic biology Botany
	tests		581	Physiologic botany
371.42 371.5	Vocations School discipline		581.5	Carnivorous and insectivorous
371.7	School welfare		583	plants Flowers
372	Elementary education		587	Ferns
372.4 379	Reading Public schools		589.2 589.3	Fungi
380	Commerce. Communication		589.5 589.95	Rockweed Bacteriology
382	Foreign trade		590	Zoology. Animal life
383 385	Postage stamps Railroads		591 591.3	Physiologic zoology Embryology
387	Ships		591.5	Habits and behavior of animals
392 395	Marriage customs Etiquet		591.57	Means of protection
399	Armor		591.9	Geographic distribution of ani- mals
	400 Philology		591.92	Marine and fresh-water fauna
440	French language		593 593.4	Protozoans. Elementary animals Sponges
1.0			370.1	-Pouges

#04.0	P.11 1	(25	D 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
593.9	Echinodermata	625	Railroad and road engineering
594	Mollusks	625.7	Roads. Highways
595	Articulates	626.8	Irrigation
595.1	Worms	627.8 628	Dams Sanitary angingering
595.4	Spiders Insects	628.1	Sanitary engineering
595.7 595.73	Termites	628.3	Water supply engineering
595.76	Beetles	628.7	Sewage disposal Rural water supply
595.77	Flies	628.9	Lighting
595.771	Mosquitoes	629.1	Aeronautics
595.78	Butterflies. Moths	629.2	Automobiles
595.79	Bees	629.213	
595.796	Ants	630	Agriculture
597	Fishes	630.942	
597.8	Toads. Frogs	630.952	
598	Reptiles. Birds	631	The farm
598.1	Reptiles	631.18	Marketing of farm produce
598.2	Birds	631.4	Soils
599	Mammals	631.5	Farm operations
		632	Hindrances. Pests
		632.6	Injurious animals
	600 Useful arts	632.7	Injurious insects
610	Medicine	633	Field crops
611		633.1	Cereals. Grains
612	Anatomy Physiology	633.3	Beans
612.1	Blood and circulatory system	633.5	Textile fibers
612.2	Respiration	633.8	Hops
612.3	Digestion	634	Fruits. Orchards
612.76	Locontotion	634.1 634.3	Apple
612.78	Voice	634.5	Citrus fruits Peanuts
613	Hygiene	634.7	Small fruits
613.2	Food. Dietetics	634.9	Forestry
613.4	Cleanliness	634.909	
613.9	Sex education. Social hygiene	634.92	Forest fires
614	Public health	635	Gardening
614.8	Safety	635.2	Potatoes
614.84	Fire protection and prevention	635.3	Cabbages
616	Pathology. Diseases	636	Domestic animals
616.2	Diseases of the respiratory sys-	636.1	Horses
	tem	636.2	Cattle
616.24	Tuberculosis	636.29	Camels
617.6	Dentistry. Care of the teeth	636.3	Sheep
617.7	Care of the eyes	636 4	Swine
617.8	Care of the ears	636.5 636.59	Poultry
619	Veterinary medicine	636.7	Ducks. Turkeys
620	Engineering	636.9	Dogs Fur-bearing animals
621	Mechanics and machinery	637	Dairy and dairy products
621.1	Steam engineering	639	Fisheries
621.3	Electricity. Applications	640	Home economics
621.31	Generation of electricity	641.5	Cookery
621.312	Central stations	649	Nursing. Care of children
621.32 621.35	Electric lighting	650	Business
621.38	Storage batteries Electric communication: radio	652	Typewriting
621.385	Telephone	653	Shorthand
621.4	Gas and oil engines. Solar en-	655	Printing
	gines gines.	658 660	Business methods
621.5	Pneumatic machinery. Refrig-	662	Chemical technology
	eration	662.2	Fuels. Explosives
621.8	Principles of mechanism	663	Explosives Beverages
621.87	Elevators	664	Food
621.9	Machine tools	664.1	Sugar
622	Mining engineering	664.2	Tapioca
622.2	Quarrying	664.4	Salt
622.33	Coal mining	664.6	Baking powder
623.8	Naval architecture	664.8	Preservation of fruits and vege-
623.825	Submarines		tables
624	Bridges	664.9	Preservation of meat

665 665.3 665.5 666 666.1 666.4 668.1 669.2 669.2 669.3 669.4 669.6 669.7 670 671W 674 675 676 677 677.1	Oils. Gases Turpentine Petroleum Ceramics Glass Clay Soap Metallurgy Iron and steel Gold and silver Copper Lead Tin Other metals Manufactures Welding Lumber. Forest products Leather. Shoemaking Paper Textiles. Weaving Linen Cotton	784 787 788 789 790 791.3 792.1 793.3 796.32 796.32 796.33 796.5 796.9 797 797.1 797.2 799 799.1 799.2	Vocal music Stringed instruments Wind instruments Percussion instruments Amusements Circus Passion play Dancing Magic Athletics and outdoor sports Basketball Football Mountaineering Winter sports Boating. Swimming Boating Swimming Game protection Fishing Hunting
677.3	Wool		910 Description and travel
677.4	Silk. Rayon	914	Europe
677.6 678	Special fabrics Rubber	914.1	Scotland
679	Other industries	914.15	Ireland
680	Mechanic trades	914.2 914.21	England London
681 683	Clocks Firearms	914.3	Germany
684	Cabinet making	914.36	
687	Clothing industries. Sewing ma- chines	914.37 914.38	Czechoslovak Republic Poland
690	Building	914.39	Hungary
691.5	Cement	914.4 914.4 3 6	France Paris
693.5 697	Concrete Heating	914.430	Italy
097	Heating	914.6	Spain
	700 Fine Arts	914.71 914.8	Finland Scandinavia
		914.81	Norway
707 708	Art—Study and teaching Art galleries and museums	914.85	Sweden
709	Art—History	914.89 914.92	Denmark Netherlands
710	Landscape gardening	914.93	Belgium
711 715	City planning Tree planting	914.94	Switzerland
720	Architecture	914.96 914.98	Balkan states Rumania
721.9	Wrought iron	915	Asia
725 727	Commercial buildings School buildings and grounds	915.1 915.17	China
728	Residences	915.17	Mongolia Japan
730	Sculpture	915.29	Formosa
737 738	Numismatics. Medals Pottery	915.3 915.4	Arabia India
739	Bronzes. Silverware	915.48	Ceylon
740	Drawing. Decoration	915.5	Persia
741 744	Freehand drawing Mechanical drawing	915.69 915.7	Palestine Siberia
748	Stained glass	915.8	Afghanistan
749	Artistic furniture	915.95	Malay Peninsula
750 757	Painting Posterit spinting	916 916.2	Africa Egypt
760	Portrait painting Engraving	916.3	Ethiopia
761	Wood engraving	916.4	Morocco
767	Etching	916.6 916.7	North Central Africa South Central Africa
770	Photography	917	North America
778 780	Moving pictures Music	917.1 917.11	Canada British Columbia
782	Operas	917.12	Northwest territories

917.123	Alberta	9	18.6	Panama
917.13	Ontario	9	19	Oceania
917.14	Ouebec	9	19.14	Philippine Islands
917.15	New Brunswick		19.2	Dutch East Indies
917.16	Nova Scotia	9	19.21	Sumatra
917.2	Mexico	9	19.22	Java
917.28	Central America		19.31	New Zealand
917.29	West Indies		19.6	Polynesia
917.295	Puerto Rico		19.61	Samoa
917.299	Bermuda		19.69	Hawaii
917.3	United States	9	919.8	Arctic regions
917.3	North Atlantic states			
917.47	New York state			92 Biography
917.471	New York city			5 . ·
917.5	Southeastern states			929.9 Flags
917.52	Maryland			
917.53	Washington, D.C.			930-999 History
917.55	Virginia Vic		122	E
917.63	Louisiana		932	Egypt
917.7	North central states		42.03	Great Britain—History—1154-1399
917.8	Western states)43)49.4	Germany
917.86	Montana		70.1	Switzerland Indians
917.87	Wyoming		770.1	
917.88	Colorado		73.1	United States Discovery
917.9	Pacific coast states		73.2	Colonial period
917.91	Arizona		73.3	Revolution, Confederation
917.94	California		73.4	Constitutional period
917.95	Oregon		73.6	Period of 1845-1861
917.98	Alaska		73.7	Civil war
918	South America		73.9	20th century
918.1	Brazil		78	Western states
918.2	Argentine Republic		79.4	California
918.3	Chile			00111011110
918.4	Bolivia		F	Photoplays. Feature or recreational
918.5	Peru		_	pictures
				F

DIRECTIONS FOR USE

The arrangement is in accordance with the Dewey Decimal classification. An Outline of the classification will be found on page viii which will serve as a table of contents.

- Title: The title of the film is given as listed by the producer. If a film is known by other titles cross references are made in the index to the title given.
- Length: Length is given in minutes when obtainable. Otherwise number of reels is given.
- Width: Width is given by the figures 16 and 35 and the abbreviation "mm" is omitted as our collaborators agreed that it was unnecessary.
- Sound: Sound films are indicated by the abbreviation "sd"; silent by "si".
- Stock: For the 35mm films inflammable is indicated by the abbreviation "f" and safety stock by "nf". Since all 16mm films are on safety stock these abbreviations have been omitted in the descriptions of these films.
- Price: The price given is usually the sales price. However, if the film is for rent only the word "rent" has been used before the price to indicate this. "Loan" instead of price is indicative of a film sent free except for transportation charges.
- Date: The copyright date is given when it was obtainable but in some cases the release date is given instead. A date followed by a question mark (e.g. 1929?) means that the date is probably the release date but definite and conclusive information was not obtainable. "Prior 1927" was taken from information given us by the American council on education.
- Producer: The producer or authorized distributor given is the one now owning or having access to the negative of the film. A list of producers is given following the Index.
- Distributor: If your local rental distributor does not have the film you want consult the producer for nearest source.
- Guide: "Guide" is used to indicate the guide for the teacher with which most films prepared for educational purposes are accompanied.

INDEX

The second part of the Catalog is arranged alphabetically. All films included in the Catalog can be found here under title and subject.

KEY TO SYMBOLS

Teaching help

min	minutes	el	elementary
si	silent	jh	junior high
sd	sound	sh	senior high
f	inflammable	С	college
nf	safety	trade	trade school

Guide

Educational Film Catalog

In this reprint a few titles have been noted as "withdrawn" because they can no longer be secured from the producers. It is, however, highly probable that some of them may still be had from various distributors.

070 Journalism

(Vocational guidance ser.) Journalist. 12min 16-si-\$24 35-si-nf-\$80 prior 1927 070

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university

"Duties of a reporter, a special writer, and a foreign correspondent on a metropolitan newspaper; international newspapering agencies; 're-write' men; caption writing; the organization of a modern newspaper office; physical make-up; operation of the plant." Indiana

jh-sh Guide

Newspaper in the making. 8min 16-si-\$8.98 35-si-f-nf-apply Bray

"Getting out a daily newspaper, from the time the reportorial staff receives its assignments to the final work of the presses in printing, folding and discharging the edition." Producer

100 PHILOSOPHY

136.7 CHILD STUDY

Films on physiological aspects of this subject have been classified in 649

Baby's day at twelve weeks. 10min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 136.7

By Dr Arnold Gesell, director, Yale clinic of child development

of child development
"In this picture the infant is followed through his domestic day from the time of his waking at six o'clock in the morning until the final breast feeding at ten o'clock at night. His dressing, bathing, feeding, daytime naps, play, and general care are presented in concrete detail along with an interpretation of the significance of his various reactions. For the most part the picture is non-technical and well suited for viewing by groups interested in the training and care of the infant." Producer sh-c Guide

Behavior day at forty-eight weeks. 10min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 136.7

By Dr Arnold Gesell, director, Yale clinic of child development

"Wholesome methods of child care are portrayed in numerous situations, including the administration of cod liver oil and orange juice, the bath, dressing, feeding, elimination, floor play and daytime naps and sleep. Emphasis is placed upon the psychological implications and the educational significance of the infant's everyday experiences." Producer

sh-c Guide

Behavior patterns at one year. 16-sd-\$50 35-sd-nf-\$100 1935 10min Erpi

By Dr Arnold Gesell, director, Yale clinic of child development
"Of a semi-technical nature and portrays the behavior patterns of a normal infant fifty-two weeks of age. The baby's manipulation and other reactions to one, two, three and ten cubes are interpreted and discussed by the narrator. The picture continues with the study of other test situations involving a cup and spoon, cup and cubes, pellet, pellet and bottle, ball, ring and string, paper and crayon, a performance box and a form board."

Producer sh-c Guide

Early social behavior. 10min 16-sd-\$50 35-136.7 sd-nf-\$100 1935 Erpi

By Dr Arnold Gesell, director, Yale clinic of child development

of child development
"In this picture the observer witnesses
the manifestations of infant personality in
a variety of social settings. Ten different
children from eight weeks to seven years
of age are depicted. Individual differences
are emphasized. The social significance of
the household is conveyed by scenes which
reflect parent-child relationships and interaction between brothers, sisters, and
adults." Producer
sh-c Guide

sh-c Guide

Growth of infant behavior: early stages. 10min 16-sd-\$50 35-sd-nf-\$100 1934 Erpi 136.7

By Dr Arnold Gesell, director, Yale clinic of child development

The activities and responses of an The activities and responses of an in-fant seated in a small chair in a photo-graphic dome are here recorded. Simul-taneous side-by-side projection gives a comparison of the same infant at different ages. There are also animated diagrams sh-c Guide

Growth of infant behavior: later stages. 10min 16-sd-\$50 35-sd-nf-\$100 1934 136.7 Erpi

By Dr Arnold Gesell, director, Yale clinic of child development

This is a demonstration of the increasing ability of the infant to use his hands in manipulating objects. The growth of the prenatal hand is also shown, by a series of animated drawings sh-c Guide

Learning and growth. 10min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 136.7

By Dr Arnold Gesell, director, Yale clinic of child development

of child development

"Attempts to clarify some of the principles which govern the learning process. The possibilities and limitations of training infants from twenty-four to forty-eight weeks of age are authentically described in pictorial continuity. Several learning problems are analyzed with special reference to the effect of maturity. The relationships between age, growth, and learning are indicated. Laws which determine learning in older children are pointed out."

Producer c Guide

Life begins. 70min 16-sd-apply 35-sd-nfapply 1934-35 Erpi

apply 1934-35 Erpi 136.7

Culmination of 24 years of clinical practice and of research on problems of infancy at the Yale clinic of child development under the direction of Dr Arnold Gesell
"Dr. Gesell directs attention to the need for a better understanding of the laws governing the infant's mental and physical growth, so that a happier social order may be developed. He proceeds to interpret the similarities, differences and characteristic ways in which infants react to standardized test situations; their everyday life, including sleeping, waking, dressing, bath, their plays and games, learning and emotional behavior, and social reactions to the family group. . . Concludes with. . .comments. . .relative to the education and mental hygiene of infants and the obligation of science, home, school and society to promote the infant's welfare by periodical health examinations, and supervision of his mental growth." Producer

c Guide

Stages of child growth. 20min 16-sd-\$85
35-sd-nf-\$190 1931 Erpi 136.7

By Dr Charlotte Bühler, professor of child psychology, University of Vienna
"Tests which have been devised to measure sensory acuity, reactions to social stimuli and powers of imitations in infants and children of pre-school age. In addition, his curiosity, body control and memory are tested. The sum total of the child's response to these tests indicates how well he will be able to adjust himself to his environment. This picture demonstrates a different testing technique from that in use in the Yale Clinic of Child Development." Producer

sh-c Guide

Study of infant behavior. 20min 16-sd-\$85 35-sd-nf-\$190 1930 Erpi 136.7

By Dr Arnold Gesell, director, Yale clinic of child development
This is an introduction to the clinical and research activities of the Yale clinic of child development showing the reactions of infants in standardized situations. Recorded at advancing ages it shows the trends and stages of early mental growth. It is further an exposition of scientific methods, portraying the techniques of the photographic dome, the cinemanalysis of behavior patterns, a diagnostic examination and the procedure of the Yale guidance nursery ance nursery sh-c Guide

Thirty-six weeks behavior day. 10min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 136.7 136.7

By Dr Arnold Gesell, director, Yale clinic of child development

by Dr Arnold Gevelopment
"The infant boy whose behavior day at
12 weeks was charted in Baby's day at
twelve weeks, listed above is now 36
weeks old. He has made striking progress.
His reactions are compared with those
which he experienced twenty-four weeks
earlier. His responses to the ministrations of his father and mother are commented upon. The very first successful
treeping efforts observed during his efforts
to advance upon and seize a ball on the
floor. An animated clock announces the
changing events of the day's schedule."
Producer sh-c Guide

150 Psychology

For films on Child study see class 136.7

170 CONDUCT

Girl who found herself. 1R 16-si-apply 35si-f-nf-loan Western electric "Story of a girl who acquired self confidence through athletic activities."

Learning to live. 4R 16-si-rent \$2 35-si-nf-rent \$3 Religious motion picture found.

How Berea college and allied schools in Berea, Kentucky prepare students for life ih-sh

172.4 Peace and war

Why? 1R 35-sd-nf-rent \$2 YMCA 172.4 Also available in a 2R version (16-si-rent \$2 35-si-nf-rent \$3)

Explains, in animated cartoon, the cause and prevention of war, demonstrating how futile is competitive armament and showing how great a waste is involved. It is an appeal for peace which should be widely shown

173 Family

Children grow up. 45min 16-si-rent \$4 1935 Religious motion picture found.

By Charles J. Carbonaro and judged one of the ten best pictures of 1935 by Movie makers magazine

makers magazine

"A study of relationships with 'adult children' in the home. This film is based on an actual story, and stresses the importance of the understanding mother with the older teen-age girl or boy. The actors in the picture were drawn from the Little Theatre group of the Central Branch, Y. W. C. A., New York city. Both boys and girls appear in the story. This film may be used to explain some of the problems met by family-welfare workers. It may also be used with discussion groups interested in youth or with agency clients who are having similar problems in their own homes." Guide to motion pictures

Obedience. (Citizenship ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 173 By C. A. Stebbins, formerly with the United States Bureau of education

Demonstrates through the behavior of Emile that the principles of good citizenship practiced in the home lead to good citizenship elsewhere

ei-jh Guide

200 RELIGION

232 IESUS CHRIST

Christ confounds His critics. (Episodes in the life of Christ) 15min 16-si-rent \$1.50 35-si-nf-rent \$2.25 Religious motion picture found.

"Two Pharisees, convinced against their will of Jesus' power, bring to Him a woman who has sinned and is to be stoned. Outwitted and ashamed by His response, they depart. A lesson in forgiveness." Producer

Christ confounds his critics—Continued
Three other subjects in this series are
"Forgive us our debts" (2R 16-si-rent \$3
35-si-nf-rent \$4.50) "Rich young ruler" (2R
16-si-rent \$3
35-si-nf-rent \$4.50) and "Unwelcome guest" (1R 16-si-rent \$1.50
35-sinf-rent \$2.25)

King of kings. 112min 16-sd-rent Kodascope

A Cecil B. DeMille production
A beautiful story of the life of Jesus
with H. B. Warner playing the part of
The Christ, Ernest Torrence as Peter and
Joseph Schildkraut as Judas, supported by an excellent cast

264 Mass

Sacrifice of the mass. 30min 16-si-\$48 1931

Made at the suggestion, and with the approval, of His Excellency Most Reverend John Francis O'Hern, late Bishop of Rochester

"Introductory scenes depict the Old and New Law Sacrifices, and the vesting of the celebrant. In the sequences showing the ceremony itself, much of the filming was done from positions close to the altar, thereby bringing out every movement of priest and server. Interpretive 'visions' are inserted at various points to emphasize the significance of the Mass." Producer

ei-jh-sh Guide

266 Missions

Padre Sahib. 4R 16-si-rent \$4 Religious motion picture found. 266

Produced by Rev. and Mrs William L. ogers. Everyday missionary life in Rogers. Northern India

290 Religion

dhism. 24min 16-si-apply motion picture found. Religious

Suitable for various types of church and mission study and for general cultural purposes as well as for studying comparative religions. This film shows the strength of the Buddhists and many details concerning the symbolism of Buddhism

Islam in Egypt. 14min 16-si-apply Religious motion picture found. 290

Suitable for various types of church and mission study and for general cultural pur-poses as well as for studying comparative

"The learning and mysticism of Moham-medanism in Egypt, the intense loyalty of its followers, its strong customs and laws of life are here portrayed, and against this are revealed some of its faults." Producer

Primitive religions. 16min 16-si-apply Religious motion picture found.

Suitable for various types of church and mission study and for general cultural purposes as well as for studying comparative religions. Interprets the beauty, intensity and the underlying savagery of the basic religious attitudes of man toward the forces of nature

291 MYTHOLOGY

Gorgon's head. 35min 16-si-\$30 35-si-nf-\$60 1925 Metropolitan museum

"The story of Perseus is presented in this film. A student comes into the Museum to make a study from a Greek vase; the figures come to life and enact the tale of the slaying of the Gorgon and its sequel. The Museum was fortunate in having the coöperation of Edith Wynne Matthison and Charles Rann Kennedy in two of the roles." Producer
Withdrawn. Withdrawn.

SOCIAL SCIENCES 300

301 Sociology

Interdependence. 30min 16-si-\$29 35-si-nf-\$80 1930 Harvard

Prepared for the Moses-Kimball fund for the promotion of good citizenship under the supervision of the Graduate school of education of Harvard university

content of the craduate school of education of Harvard university

"Designed to be used very generally in social science instruction and is adapted particularly to serve as the introductory unit of any course in civics. The film is a presentation of one of the most important facts of modern civilization—the dependence of individuals and communities upon one another. Interesting action scenes show the specialized jobs of the Town and City which increase dependence as well as benefits. There are scenes of dairy farms, of stockyards, of wheat fields and bakeries, of forests and lumber camps, of coal mines, and of the vast network of railways that bind together our entire country. Finally, by means of scenes taken in foreign countries throughout the world, the picture ends with the conclusion that all nations as well as individuals are interdependent and that progress depends upon their intelligent co-operation." Producer

"[Useful in civics, history and geogra-hy [classes]" Am. museum of nat. hist. ei-jh-sh Guide

311 STATISTICS

Frequency curves. 8min 16-si-\$12 1929 Eastman

"Gives the student a conception of frequency distribution and an interpretation of frequency curves. The film is valuable in college classes for engineering, chemistry, biology, sociology, insurance, psychology, etc. Grains of a precipitate are classified according to size. It is shown, by animation, that as the number of classes increases, the accuracy of the representation increase, but so does size." Ohio sh Guide

320 POLITICAL SCIENCE

323.6 Citizenship

Films on this subject have been classified in 353 with other material on government

325 Immigration

Immigration. (Citizenship ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

By C. A. Stebbins, formerly with the United States Bureau of education

"Story of an Italian immigrant who came to America. The film contrasts his opportunities in the two countries and shows what he accomplished in America thru thrift and hard work." Indiana ei-Ih Guide

Immigration to the United States. 1R 16si-apply 35-si-nf-apply Soc. for visual

educ.

"Shows the important 'waves' of immigration and brings out the causes back of each. The European background of the immigrant is presented, as well as special sections of the United States settled by the English and Dutch, the Irish and Germans, and other foreign peoples. The contributions immigrants have made to the foundation and development of a separate nation are indicated. The fact is pointed out that the future of the United State depends on the children of immigrants as well as on those who have longer enjoyed this country's privileges." Producer

Guide

326 Negroes

Negro artists at work. 4R 16-si-rent \$4 Religious motion picture found. 326

"Showing several Negro artists at work in their studios and emphasizing the industriousness in bread-winning activities that is in the background of much Negro art production." Producer

327 International relations

films dealing with war and peace For see 172.4

330 Economics

331 Capital and labor

331.2 Wages

Fifty-two pay checks each year. 25min 16-sd-loan 35-sd-f-nf-loan 1935 Progress Progress 331.2

Narrated by J. Manley Phelps. Sponsored by Nunn, Bush and Weldon shoe

This is the story of the plan worked out by the Nunn, Bush and Weldon shoe company of Milwaukee to give their employees a yearly salary thus carrying them over enforced shut-down periods. It is produced from an academic point of view and will provoke discussion among students on present day economic problems. Classes in sociology and economics will find it of especial interest as will church audiences interested in social betterment

sh-c

331.4 Women in industry

Behind the scenes in the machine age. 35min 16-si-loan 35-si-nf-loan 1931 1931 Women's bur. 331.4

Produced by Atlas educational film co. "Shows how modern invention is rapidly replacing hand labor. The film shows how working conditions for women have been improved and also points out possible ways for further improvement. An excellent picture for the study of vocations, shop management, and economics." Indiana

Story of the women's bureau. 15min 16-si-loan 35-si-nf-loan 1929? Women's bur. 15min 16-si-

Produced by Edward B. Pence

Development of the Bureau and how it works to achieve and maintain comfortable working conditions for the woman in industry

331.8 Laboring classes

Industrial worker. (Vocational guidance ser.) 12min 16-si-\$24 35-si-nf-apply prior 1927 DeVry

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university

"Life in factory and at home." California "Film lesson in vocational guidance. Comparison of number of pupils finishing grade school, high school, and college. Conveys the necessity of preparing one's self for opportunities which may arise." Jh-sh Guide

Tale of two rivers. 40min 16-si-rent \$4 Sutherland 331.8

The scenes of this film are in the valley of the Arkansas river and the Tennessee river. We are shown the rich cotton plantations; taken into the fields where child labor is rampant and into the shacks of the share croppers where poverty and disease run rife. Shows some of the magnitude and beauty of the social-economic experiment of the Tennessee valley authority and gives as an example of a well planned city, Norris, in the upper Cumberlands

Guide Guide

332 Money and banking

For films on saving and thrift see 339.4

332.4 Coins and coinage

Making money. (Seeing Canada ser.) 8min 16-si-\$9 35-si-nf-apply Canadian gov't. 332.4

"A film showing how Canada mints its coinage. This film is of an educational type and has been in large demand both in theatrical and non-theatrical circles. It is the only film of its kind ever produced in Canada." Indiana

"How gold and silver coins are made at Royal Mint, Ottawa." California

332.6 Stocks and stock exchanges

Mechanics of the nation's market place. 25min 16-si-loan 35-si-f-nf-loan 1929 332.6 Dynamic

Produced for the New York stock ex-

"A definite and accurate record of the training and education given the youthful employees of the New York Stock Exchange, depicting a career of instruction and training to develop character and a good business sense. [Useful in civics [classes]" Am. museum of nat. hist. change "A definite and accurate record of

Nation's market place. 12min 16-si-loan 35-si-nf-loan 1929 Dynamic 332.6

Produced for the New York stock exchange, being the only motion picture taken on the floor of the Exchange "A clear, graphic and understandable portrayal of the method and system of transactions in stocks, accurately depicting the work inside and behind the New York Stock Exchange. [Useful in] civics, geography and commercial geography classes!" Am. museum of nat. hist.

Jh-sh

339.4 Saving and thrift

Thrift. (Citizenship ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry **339.4**

By C. A. Stebbins, formerly with the United States Bureau of education "How thrift may be practiced in matters of health, dress, time, etc., as well as in tearning and spending; the practice of thrift as a part of character building." Univ. of Hawaii

el-Ih Guide

352 Local government

Working with civic organizations. zenship ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 352

By C. A. Stebbins, formerly with the United States Bureau of education "How a class in civics coöperated with a chamber of commerce in starting an effective movement to beautify a city. The class selects an ill-kept house and makes it a beauty spot. The effect of this work carries thru the entire neighborhood in encouraging clean-up work and civic pride." Indiana

el-Ih Gulde

353 United States government

This number is used for films on government and civics

Citizen and his government. 2R 16-si-apply 35-si-nf-apply 1921 Soc. for visual 353 educ.

"Re-edited and re-photographed and in addition to being a wonderful class room film, is excellent for adult groups and general programs." Producer
"This film is in story form showing an American mechanic introducing his foreign relative to some common city sights and

institutions explaining how our government protects the health and lives of the workingmen, how it performs hundreds of services every day in protecting the life of the public. How health and property are protected; how education is administered; and how parks and playgrounds are provided." Indiana

sh Gulde

Service. (Citizenship ser.) 12min 16-si-\$24
35-si-nf-\$80 prior 1927 DeVry 353
By C. A. Stebbins, formerly with the
United States Bureau of education
"A lesson for children bringing out thru
story form the fact that they owe service
to their parents in performing some of
the home duties. The picture shows how
people are dependent in so many ways
upon service rendered by others and how
each person in turn has a service which
he must perform if he too be a good citizen." Indiana

el-ih Gulde

355 Army

Gentlemen cadets. (Seeing Canada ser.) 8min 16-si-\$11.10 35-si-nf-apply Canadian gov't.

"An educational type of film dealing in an interesting manner with the life and training of cadets at the historic Royal Military College at Kingston, Ontario."

359 Navy

et ho. 1R 16-si-sd-loan 35-sd-f-loan Navy recruiting serv. 359 Fleet ho. 359 Producer ei-jh-sh-c

Gray armada. 1R 16-si-sd-loan 35-sd-f-loan Navy recruiting serv. "Battleships, planes, plcture attack." Colorado submarines in a Jh

Sports of sailormen. 1R 16-si-sd-loan 35-sd-f-loan Navy recruiting serv. 359 "Calisthenics, baseball, fencing, boxing, wrestling, rowing, and football are all shown as they are carried on in the sports of the sailors." Colorado

Sprinkles of salt. 1R 16-si-sd-loan 35-sd-floan Navy recruiting serv. "Navy routine life on board ship explained in dialogue." Producer jh-sh

369.43 Boy scouts

America's heritage. 30min 16-si-loan 35-si-nf-loan prior 1927 Goodyear 369.43 Some of the beauties of New England are revealed in this Boy Scout camping trip which covers also various phases of camp life—fire building, trailing, life-saving, etc. The story is told by one of the boys in letters to his mother

370 EDUCATION

370.1 Theory of education

Creative approach to education. 20min 16-sd-\$85 35-sd-nf-\$190 1931 Erpi 370.1

sd-\$85 35-sd-nf-\$190 1931 Erpi 370.1

By Dr Hughes Mearns, professor of education, New York university
"Dr. Mearns interprets the philosophy of creative education. True-to-life scenes are interpolated in the lecture to illustrate his points that: children have thinking minds of their own and long to express their true feelings; they possess several vocabularies appropriate to their various environments; they are naturally truthful; they are individuals. He reads a number of exceptional poems which children have written in a stimulating environment."

Producer c Guide

Dynamic learning. 20min 16-sd-\$85 35-sd-nf-\$190 1931 Erpi 370.1 By Dr W. H. Kilpatrick, professor of education, Teachers college, Columbia uni-

education, Teachers conege, community versity
"Dr. Kilpatrick, leading exponent of the doctrines of John Dewey, sets forth some of the principles underlying 'creative' or 'progressive' education. He develops the idea that whatever a child learns must be related to the situation with which he is confronted. The type of education needed today is of the dynamic sort. Methods by which this dynamic learning can be fostered are illustrated by actual classroom scenes." Producer

c Guide

371.26 Educational measurements and tests

Few tests of child intelligence. 10min 16-sd-\$50 35-sd-nf-\$100 1930 Erpi 371.26

By Dr Ina Craig Sartorius, assistant principal, Horace Mann elementary school "Gives a sane and authentic view of the subject of intelligence tests. Of interest and value both to teachers and parents." Oregon c Guide

371.42 Vocations

Choosing your vocation. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 371.42 By Dr Harry D. Kitson, professor of education, Teachers college, Columbia uni-

education, Teachers college, Columbia and versity
"Dr. Kitson enacts the role of a psychoanalyst as he interprets the vocational problems of a high school boy who is making an effort to adjust himself. The boy faces his first problem when he desires money to purchase a camera. His first attempt at a 'white collar' job is unsuccessful. Further research and reading convince the boy that he must enter a vocation which will permit him to utilize his special talents and interests. Following a period of 'try-out' he reaches his goal." Producer

[h-sh Guide]

Guidance in public schools. 20min 16-sd-\$85 35-sd-nf-\$190 1931 Erpi 371.42

By Dr Richard D. Allen, assistant super-intendent of schools, Providence, R.I.
"Some of the problems of organizing and administering guidance in public schools. . Orientation courses, educational guidance, the testing of pupils, vocational

guidance, adjusting the pupil to the school and to the community. Procedures used in the Providence, Rhode Island, public schools." Producer Guide

371.5 School discipline

School discipline. (Citizenship ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 371.5

By C. A. Stebbins, formerly with the United States Bureau of education
Distinguishes between external and internal influences as they relate to conduct; and suggests a simple yet effective plan by which a school might be disciplined el-jh Guide

371.7 School welfare

School industries. (Citizenship ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 16-si-\$24 35-si-nf-\$80 prior 1927 371.7

By C. A. Stebbins, formerly with the United States Bureau of education "School children start vegetable garden and turn old room into cafeteria. Girls learn to cook and at small cost serve lunch." California el-jh Guide

372 Elementary education

Elementary teacher as a guide. 20min 16-sd-\$85 35-sd-nf-\$190 1931 Erpi 372 372

By Dr B. H. Bode, professor of educa-tion, Ohio state university in collaboration with Dr Laura Zirbes, associate professor of principles of education, Ohio state uni-

of principles of education, Ohio state university
"Dr. Bode claims that the problem of education is to determine the desirable point between two extremes; on the one hand, telling the pupil what to do; and on the other, asking him what to do. Various methods of arriving at this point are illustrated in the picture by showing a number of actual classroom situations." Producer c Guide

Primary teacher at work. 20min 16-sd-\$85 35-sd-nf-\$190 1931 Erpi 372

35-sd-nf-\$190 1931 Erpi 372

By Louise L. Stone, classroom teacher, Bronxville, N.Y., public schools

"A classroom teacher demonstrates her philosophy of education in a classroom setting. Miss Stone gives a description of the room's equipment and furnishing which stimulate creative thinking and activity. She calls attention to the exhibits of creative work done by the children in different fields of interest, explains how she prepares and guides the children during the school day, and evaluates the progressive method with respect to pupil achievement." Producer

C Guide c Guide

372.4 Reading

Teaching of reading. 2R 16-sd-\$85 35-sd-nf-\$190 1931 Erpi 372.4

By Dr Arthur I. Gates, professor of edu-cation, Teachers college, Columbia univer-

sity Dr. "Dr. Gates demonstrates modern meth-ods of teaching reading by showing actual Teaching of reading—Continued
classroom procedure over an extende
period, during which the class stages
miniature circus." Producer
c Guide extended

379 Public schools

C7C Citizens of the future. (Face of Britain ser.) 21min 16-sd-apply 35-sd-f-apply Gaumont British 1935

ser.) 21min 16-sd-apply 35-sd-1-apply 1935 Gaumont British 379

Produced in collaboration with the National union of teachers

"A survey of the methods employed in public education in [Great Britain] at the present day, chiefly in the elementary schools. Starting with the infants (up to the age of seven) and the Junior Schools, the film shows us intimately pupils at work and at play, and proceeds in the same manner to the Senior Schools, and so on briefly to the Central and Technical Schools, etc., indicating finally how all training undertaken is aimed at fitting children for the practical business of life, in industry, commerce, commercial art, on the land, and in the home. Great emphasis is laid on the manipulative and practical aspects of modern education, and the endeavour to make everything as interesting as possible and to give full scope for initiative. A typical scene shows the very small ones managing their own percussion-band. The film ends with various shots of children at physical training marching in formation past the camera, with the sky as background. An attractive film. . This film should be considered . . . as a pictorial impression rather than as a full statement, though within its limitations it is of great interest. . . Of general interest, particularly for teachers and parents." British film inst.

Free schools—hope of democracy. 2R 16-si-\$24 1932 Eastman 379

"A splendid production showing the functions and development of the public schools and the very important part they play in the life of today. This film should be shown in every city. It is a real argument for the public schools." Iowa state college

"Will be found very interesting for Par-ent Teacher groups and other organiza-tions interested in the advancement of education." Iowa univ.

380 COMMERCE. COMMUNICATION

A film covering many kinds of transportation is classed here. Those depicting one form only are classed with their specific number (e.g. Railroads 385, Aeronautics 629.1)

Development of transportation. 10min 16sd-\$50 35-sd-nf-\$100 1935 Erpi

sd-\$50 35-sd-nt-\$100 1935 Erpi 380
"Transportation developments within the United States during the past one hundred fifty years. The physical barriers, the spread of the railroad network, and the subsequent highway development, are shown rapidly and clearly. Principal stages in the development of the locomotive and automobile are portrayed. Modern transportation devices including the airplane are shown in relation to their potentialities and our utter dependence upon them." Producer

el.Ih Guide

ei-Ih Guide

Farther, faster and safer. 25min 16-sd-loan 16min 35-sd-nf-loan 1934 Pennzoil 380 History and development of transporta-tion in the United States. Trains, planes, tractors, racing cars el-jh-sh-c

Land transportation. 15min si-f-nf-\$75 1929 Harvard 15min 16-si-\$25 35-380

"Dealing with the progression of land transportation through the ages, this film demonstrates the diminishing size of the world as successive forms of transport develop. Methods illustrative of past periods are shown as they still last today in out-of-the-way parts of the world. Human carriers, beasts of burden, primitive wheel carts, carriages, stage coaches, and then various forms of modern transportation by steam, electricity and motor are all represented. The great air-liners are shown loading and taking off." Producer

commerce. (World geography 12min 16-si-\$24 35-si-nf-\$80 prior Modern commerce. ser.) DeVry 1927

By De Forest Stull, Teachers' college, Columbia university
"The rich content of this subject makes it necessary to issue this film lesson in two sections; one dealing with the Mediterranean and historic backgrounds; and the other with modern commerce, especially on the Atlantic and Pacific coasts. The manual accompanying this, should, therefore, be used in conjunction with the lesson plan issued on the section relating to historic backgrounds (People who live by the sea, class 573.4), many of the questions and projects and all of the references given in that manual being relevant to this lesson." Iowa univ.

el-jh Guide

nsportation. 15min 16-si-\$17.28 35-si-f-nf-apply 1926 Bray 380 Transportation.

By Morris Meister, head of science de-partment, Haaren high school, New York

"Man's effort to overcome time and dis-"Man's effort to overcome time and distance forces greater than his own, is traced from the most primitive times and places to ultra-civilized New York. Dogs, llamas, burros, horses, coaches, man-power vehicles, sail, steam, electricity, aircraft, the place of each in human progress is shown." Producer

Transportation. (General science 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

"Principles of steam and gas engines used in locomotives, automobiles, and airplanes." California Jh-sh Guide

Wheels of progress. 1R 35-si-nf-loan 1927 U.S. agric.

A Bureau of public roads film

"Transportation in America from the day of the bicycle and the fancy turnout to modern methods of transportation. How the gasoline engine revolutionized American transportation and how the motor car and the truck are contributing to progress and prosperity in the U.S." Illinois

Wings of a century. 1R 16-si-\$20 Bell & Howell 380

Also available in a 1/2R version (16-si-

"A history of transportation in America from the Indian travois to the modern airship, as shown in pageant form at the Century of Progress exposition, Chicago." Utah

382 Foreign trade

Carrying American products to foreign lands. IK 10 1027 U.S. steel 1R 16-si-loan 35-si-nf-loan prior

"Shows a diagram of a steel ship, the cargo holds, captain's and officers' quarters. Placing cargo for export; galvanized iron sheets, locomotives for the Far East, nalls, barbed wire, and ammonium-sulphate; details of running a ship. Unloading imports: rubber from Sumatra, hempfrom the Philippines, and tin from Singapore. [Useful in] geography and commercial geography [classes]" Am. museum of nat. hist. el-jh-sh

383 Postage stamps

Uncle Sam's stamp factory. 5min 16-si-\$6.55 35-si-f-nf-apply Bray

"The postage stamp production section of the Bureau of Printing and Engraving, Washington. Engravers at work; an engraved plate; printing 20,000 stamps a day; tinting, gluing, perforating, cutting." Producer ducer

385 Railroads

King of the rails. 1R 16-si-loan 35-si-f-nfloan General electric

"Shows the evolution of transportation on land. Scenes include steam locomotives in freight and passenger service, ending with the stimulus which electricity has given to the development of transportation. [Useful in history, general science, physics and geography [classes]" Am. museum of nat. hist. el-jh-sh

Transportation. 30min 16-si-loan 35-si-nfloan prior 1927 Bur, of mines

Made in cooperation with the Westinghouse electric & manufacturing company "Early methods of transportation, the first use of wheels on a vehicle, the first steam locomotive, discovery and harnessing of electricity, and the assembling of a modern electric locomotive. The film shows railroads that have been electrified, and different types of electric locomotives." Indiana

"[Useful in history, physics, geography and shop work [classes]" Am. museum of nat. hist. el-jh-sh

387 Ships

Ocean liners. 15min 16-si-\$24 1930 Eastman

used effection. Steps "This film can be used effectively in classes in transportation. Steps involved in building an ocean liner. Loading of cargo and supplies. Fueling. Life boat inspection and medical inspection of the crew. Quarters of the crew members. By animation and actual photography the film shows how vessels are controlled from the bridge. In the engine room. Passenger life on a large ship." Indiana el-jh-sh-c Guide

Queen of the waves. 1R 16-si-loan 35-si-f-nf-loan General electric 387

"The story of the progress of American navigation, from the time when primitive inhabitants paddled across streams on logs or constructed crude rafts until their skill mastered the building of a bark canoe.

The scenes of these early boats gliding along the wilderness streams are in striking contrast to the electrically propelled battleship on the high seas. After a short but stormy trip to sea we meet the 'Queen of the Waves,' an electrically propelled battleship. The film bridges five hundred years of American history. [Useful Injustory and general science [classes]" Am. museum of nat. hist.

Transportation on the Great Lakes. 15min 16-si-\$24 1931 Eastman 387

"May be used in studying transportation, or any region bordering on the lakes. The first part of the film, dealing with the formation of the lakes, is adapted to physical geography classes. Formation of the Great Lakes. Opening lake traffic. Bulk freighters and car ferries. Package and passenger liners." Indiana Guide

392 Marriage customs

Peasant wedding in Hesse. 2R 16-si-sdloan 35-si-sd-nf-loan German tourist

"Intensely interesting is the ritualistic marriage ceremony still carried out to the present day, from the elaborate preparation of the bride to the transportation of her dowry in a hay-wagon." Young men's Christian assn. Of general interest

lh-sh

395 Etiquet

Japanese table manners. 1/4 R 16-si-\$5 Burton Holmes 395

Japanese girls using their "hashi" or chopsticks

399 Armor

Visit to the armor galleries. 30min 16-si-\$60 35-si-nf-\$120 1922 Metropolitan museum

Reel 1 is on chain mail and Gothic armor and reel 2 is on Maximilian and enriched armor. They should be shown together since they present in historical sequence knowledge not easily obtainable in any other way. Many feats are performed on foot and on horseback by knights in authentic armor. The beauty of design in armor as well as of the armorer's skill in modeling in steel is shown jh-sh

400 PHILOLOGY

440 FRENCH LANGUAGE

French "U". nch "U". 5min 16-sd-apply 35-sd-f-apply Gaumont British 440

"Explains the actions of the mouth, lips and tongue for correct pronunciation of the vowel sound 'U.'" Producer Guide

La gare. 5min 16-sd-apply 35-sd-f-apply Gaumont British

"Showing the expressions practiced in actual use at a railway station." Producer Guide

500 SCIENCE

510 MATHEMATICS

511 Arithmetic

Individual differences in arithmetic. 20min 16-sd-\$85 35-sd-nf-\$190 1931 Erpi 511

By Dr G. T. Buswell, professor of education, University of Chicago
"Three diagnostic techniques. First.
. an elaborate machine which photographs the child's eye movements in adding figures. Next. . a machine which records the rhythm of a pupil's adding. The third method illustrated is one which the teacher in the classroom can use to diagnose difficulties which hinder pupils in the mastery of the subject." Producer

c Guide

513 Geometry

Play of imagination in geometry. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 513

By Dr David E. Smith, professor emeritus of mathematics, Teachers college, Columbia university

A method of presenting geometry to students which recognizes difficulties in grasping spatial relationships. The use of animated devices to make these relationships clearer. Angles, parallel lines, planes, cones, and spheres and a picturization of the ideas of infinity

sh Guide

520 Astronomy

Birth of the earth. 6min 16-si-\$7.90 35-sif-nf-apply Bray

"How the earth and other planets were born, combining actual photography with clever animated drawings." Colorado

Communing with the heavens. (Seeing Canada ser.) 13min 16-si-\$9.75 Canadian gov't.

"Film trip through the Dominion Observatory at Ottawa, Canada, giving a clear insight into the work of the astronomy, seismography and other scientific undertakings carried on here." Producer "[Useful in nature study and general science [classes]" Am. museum of nat. hist.

Earth and worlds beyond. 12min 16-si-\$24 35-si-nf-\$50 1921 Soc. for visual educ.

Animated summary of the cycles of day and night and of the seasons, which shows the child how the movements of the earth and the moon cause these phenomena. Also several views of the sun, stars, and planets, taken through the largest telescope in existence

ei Guide

Eclipse of the sun. 8min 16-si-\$10.95 35-sif-nf-apply Bray 520

Animated technical drawings show the cause of an eclipse and also what it looks like. Shows details of the eclipse of June,

1918—path of the moon's shadow, appearance of sun approaching complete eclipse and during the brief moment of totality with the corona.

Motion picture journey to the moon. 15min 16-si-\$30 35-si-nf-\$70 1933 Univ. of Chicago press

Produced by the McMath-Hulbert observatory of the University of Michigan A panoramic picture of the moon at first quarter. Sunrise and sunset phenomena in lunar craters on an enlarged scale and an occultation of Delta Capricorni by the moon

. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry **520**

By G. Clyde Fisher, of the American museum of natural history
"The Ancients pictured the sky as the place where they could see their heroes; how moon makes its own quarters; a simple telescope; one of the largest telescopes in the world, at Lick Observatory; an imaginary trip to the moon; what the moon is like; functions of the various planets." Iowa state college

ei-jh Guide

Solar eclipse of August 31, 1932 10min 16-si-\$30 35-si-nf-\$60 1933 Univ. of Chicago press

Produced by the McMath-Hulbert observatory of the University of Michigan
The actual progress of the moon across the sun is shown by stop-motion photography. When the eclipse is complete, the corona makes a striking and beautiful picture. A special shot of the solar prominences at the time of the eclipse is shown on an enlarged scale

Solar phenomena. 1R 16-si-\$30 35-si-nf-\$50 Univ. of Chicago press 520

Made in cooperation with McMath-Hul-ert observatory of the University of Michigan

Michigan

"This film shows a short-lived solar bomb which is a mass of incandescent hydrogen ejected from a sun-spot. Prominences many thousands of miles high and thousands of miles across are also shown in motion."

Tides and the moon. 6min 16-si-\$8.90 35-si-f-nf-apply Bray 520

Photography and animated drawings show the pulling forces of moon rays; high tide and low tide; difference between spring and neap tide

530 Physics

Energy and its transformations. (Univ. of Chicago physical science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1933 Erpi 530 By Dr Harvey B. Lemon and Dr Her-mann I. Schlesinger of the University of

Chicago

"Potential, kinetic and radiant energy, as manifested in mechanical, chemical, and thermal form, are vividly illustrated and explained. The principle of conservation of energy, and the concepts 'power' and 'work' are demonstrated in experiments. The film closes with a review of present and future sources of energy." Producer jh-sh Guide

533 Air

(General science ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

By Morris Meister, head of science de-partment, Haaren high school, New York

"Physical properties of air, and their utilization by people in the home, in business, and in social life." Texas el-Jh-sh Guide

Air pressure in which we live. 5min 16-si-\$6.67 35-si-f-nf-apply Bray 533 "Laboratory experiments demonstrate at-mospheric pressure." Producer

Atmospheric pressure. 15min 16-si-\$24 1928 Eastman

"Unbalanced air pressure; operation of the vacuum cleaner, effect of atmospheric pressure upon a vacuum; Magdeburg hemisphere demonstration; operation of a common lift pump; pressure variations in a valley and on a mountain top; causes of land and sea breezes." Weaver

jh-sh-c Guide

Liquid air. (no. 51) 1R 16-si-loan 35-sinf-loan General electric

"Shows the production of liquid air and a number of laboratory experiments that demonstrate its properties and its ef-fects on various substances." Producer

Liquid air. (no. S-2212) 1R 16-sd-loan 35-sd-f-nf-loan General electric 533 533

"Ellis Manning, of the G-E Research Laboratory, describes the properties of liquid air and demonstrates its effect on various familiar objects. Close-up photog-raphy gives a . . . portrayal of the be-havior of this super-cold fluid." Producsh-c-trade

534 Sound

Fundamentals of acoustics. (Univ. of Chicago physical science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1933 Erpi **534**

By Dr Harvey B. Lemon and Dr Hermann I. Schlesinger of the University of Chicago, Dr Harvey Fletcher of Bell telephone laboratories, and Dr Donald MacKenzie of Electrical research products

inc.

"The phenomenon of hearing and the modification of sound between the source and the hearer are emphasized in this film. The specific elements explained or demonstrated are velocity of sound, refraction, range of hearing, lowering intensity, attenuation in air, eliminating high and low frequencies, reverberation and focussing of sound. Extensive use is made of animation and sound effects. The film concludes by indicating advances in communication which have resulted from combining our knowledge of sound and of electricity." Producer

Jh-sh Guide

Sound waves. 1R 16-si-apply Edited pic-534

Originally produced by Urban "Study of the properties and use of sound waves." Producer

Sound waves and their sources. (Univ. of Chicago physical science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1933 Erpi 534

By Dr Harvey B. Lemon and Dr Hermann I. Schlesinger of the University of Chicago, Dr Harvey Fletcher of Bell telephone laboratories, and Dr Donald Mac-Kenzie of Electrical research products inc. "Demonstrates and explains several types of sound sources. The transmission of sound waves through the air is . . . visualized. The characteristics of sound waves, such as frequency, amplitude, wave length, fundamentals, harmonics, are . . explained visually with acoustic accompaniment. The highspeed camera, animation, sound effects, and an oscilloscope are used to clarify these phenomena of sound." Producer Jh-sh-c Guide

535 Light

Behavior of light. 15min 16-si-\$24 1930 Eastman

"Introduces the subject of light. Presents the ideas of transmission, shadows, and eclipses. Explains the formation of images in plane, convex, and concave mirrors. Demonstrates the cause of refraction. Illustrates dispersion, color, and the rainbow." Producer sh-c Guide

535.8 Practical applications. Lenses

Eyes of science. 45min 16-si-loa loan 1930 Bausch & Lomb 45min 16-si-loan 35-si-nf-

"Galileo with his early telescope; Leeuwenhoek and his simple microscope; the arrangement of lenses and tubes which have given the scientists the super-eye; the spectroscope; ophthalmoscope; binoculars; motion picture machines." Colorado jh-sh-c Guide

Lenses. 15min 16-si-\$24 1931 Eastman 535.8

"Emphasizes those phases of lens re-fraction admirably shown by animation: action of a converging lens, real and virtual images, changes of magnification; effect of diverging lens and formation of the virtual image; construction and ex-planation of achromatic lenses." Producer Jh-sh Guide

Optical instruments. 15min 16-si-\$24 1931 535.8

"Utilizes the principles of reflection and refraction and applies them to optical devices. The film units are Mirrors; The Eye and Spectacle Lenses; The Camera; Stereopticon and Moving Picture Projectors; Microscopes and Telescopes." Producer jh-sh Guide

536 Heat. Fire

Experiments in conduction of heat. 16-si-\$5.26 35-si-f-nf-apply Bray 5min "Laboratory experiments; boiling water paper tea-kettle over flame, etc." in paper Producer

Fire and heat. (General science ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 536

By Morris Meister, head of science partment, Haaren high school, New

"A forest fire, an oil fire, oxidation, the kindling point, blast furnace, purifying steel, radiation, poor and good conductors of heat." Weaver jh-sh Guide

Fire making. 15min 16-si-\$24 1930 East-

"Especially suitable for science classes. Why does a fire start? What is a flame? What becomes of substances when they burn? The answers to these and numerous other questions on the phenomenon of combustion may be found in a study of this film. Fuel and oxygen. Kindling points. Matches. Making modern matches." Indiana jh-sh Guide

537 Electricity

This number is used for theoretical aspects of electricity including experiments for physics classes. For practical applications and engineering aspects see 621.3

(Electricity and magne-15min 16-si-\$24 35-si-nf-\$55 Electrostatics. tism ser.) 1922 Soc. for visual educ. 537

By Dr Harvey B. Lemon, of the University of Chicago
"That part of electricity that deals with phenomenon of static electricity... Will... enable the student to see the connection of electrostatics with other phases of electricity." Iowa univ.

Guide
Guide Guide

Electrostatics. (Univ. of Chicago physical science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1933 Erpi 537

By Dr Harvey B. Lemon and Dr Hermann I. Schlesinger, of the University of

Chicago

Chicago

"Deals with static electricity as fundamental to an understanding of the modern theories of electricity. It explains how positive and negative electrification are produced and by animated drawings shows the part played by insulators and conductors. Natural photography supplemented by animation gives an exposition of the movement of charges in the electroscope, the Compton electrometer, the static machine, and Nature's display of static electricity, lightning." Producer Jh-sh Guide

High frequency currents. (Electricity and magnetism ser.) 15min 16-si-\$24 35-si-nf-\$55 1922 Soc. for visual educ. 537

By Dr Harvey B. Lemon, of the University of Chicago
Performance of both elementary and advanced experiments in the Ryerson physical laboratory at the University of Chicago sh Guide

537.5 X-rays

Cathode-ray tube. ½R 16-si-loan 35-si-f-nf-loan General electric 537.5

"Dr. W. D. Coolidge, Director of the G-E Research Laboratory, describes the construction and operation of a large cathode-ray tube and shows the effects of cathode rays on various minerals." Producer jh-sh-c-trade of the bes the .

Revelations by X-ray. 1R 16-si-loan 35-si-f-nf-loan General electric 537.5

t-nt-loan General electric 537.5

"A few essential operations in the manufacture of the Coolidge tube, and by animated drawings the electrical action in producing X-Rays is visualized so clearly that a child can understand the subject. A few demonstrations follow showing the power of X-Rays to reveal the inner structure of opaque objects, such as wood, steel, cast iron, and even the hidden wheels of a clock. Scenes which show the action of the bones of the hand, wrist, elbow, knee, ankle, and foot, also views of the teeth, concluding with an X-Ray view of the entire body." Indiana "(Useful in physics, biology and general science classes)," Am. museum of nat. hist.

hist. sh

538 Magnetism

Early experiments of Michael Faraday. 16-sd-loan 35-sd-f-nf-loan General elec-

"Sir William Henry Bragg reënacts Michael Faraday's early experiments in magnetism with Faraday's original equipment. This picture . . . was made in England." Producer sh-c

Electromagnetic induction. (Electricity and magnetism ser.) 15min 16-si-\$24 35-si-nf-\$55 1922 Soc. for visual educ. 538

By Dr Harvey B. Lemon, of the University of Chicago By Dr Harvey B. Lemon, of the versity of Chicago
Performance of both elementary and advanced experiments in the Ryerson physical laboratory at the University of Chicago sh Guide

Electromagnetism. (Electricity and magnetism ser.) 25min 16-si-\$45 35-si-nf-\$90 1922 Soc. for visual educ. 538

By Dr Harvey B. Lemon, of the University of Chicago
"Shows the relation of magnetism and electric currents... Is also intended to make clear how the phenomenon of electro-magnetism is made use of in practical problems of everyday life, and to explain the action of a few of the important electro-magnetic devices." Iowa univ.

sh-trade Guide

Magnetic effects of electricity. 15min 16-si-\$24 1930 Eastman 538

"Magnetism and magnetic induction with their applications to the electromagnet, the electric bell, the ammeter, the voltmeter, and the motor—the theory of permanent magnetism—an explanation of terrestrial magnetism." Producer jh-sh-c Guide

gnetism. (Electricity and magnetism ser.) 15min 16-si-\$24 35-si-nf-\$55 1922 Soc. for visual educ. 538 Magnetism.

By Dr Harvey B. Lemon, of the University of Chicago
Elementary and advanced experiments at Ryerson physical laboratory, University of Chicago

sh-trade Guide

Story of the magnet. 1R 16-si-apply Edited pictures 538

Originally produced by Urban Experiments showing numerous uses of magnetlsm

539 Molecular physics

Molecular theory of matter. (Univ. of Chicago physical science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1932 Erpi 539

By Dr Hermann I. Schlesinger and Dr Harvey B. Lemon of the University of Chicago 'Evidence of molecular activity in

Chicago
"Evidence of molecular activity in gases, liquids, and solids is presented in support of the molecular theory of matter. Animated drawings explain such phenomena as the diffusion of gases, the evaporation of liquids, and the transformation of liquids into solids, in terms of the theory. Among the features of the film are the machine gun illustration of the force exerted by molecules in motion, and the microscopic view of the Brownian movement, direct evidence of molecular motion." Producer

[h-sh-c Guide] Producer jh-sh-c Guide

539.7 Radioactivity

Radioactive rays. 1R 16-sd-loan 35-sd-f-nf-loan General electric 539.7

"Technical study of the disintegration of certain minerals, complete with diagrams and experiments, presented by Dr. C. W. Hewlett of the G-E Research Laboratory."

540 CHEMISTRY

Beyond the microscope. 1R 16-si-loan 35-si-f-nf-loan General electric 540

"This reel visualizes and explains the decomposition of water into hydrogen and oxygen, the union of these gases in combustion, their atomic structure, and their combination to form a molecule of water." weaver sh

Chemistry of combustion. 1R 16-si-apply Edited pictures 540

Originally produced by Urban

"A series of chemical experiments in the phenomena of oxidation and combus-tion—too dangerous for performance in the average laboratory." Indiana

Oxidation and reduction. (Univ. of Chicago physical science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1932 Erpi 540

By Dr Hermann I. Schlesinger and Dr Harvey B. Lemon of the University of Chicago

"The simultaneous process of oxidation and reduction is presented first by burning phosphorus and rusting iron under experimental conditions. Mercury rust is then decomposed to discover the component of air responsible for oxidation. Other examples of oxidation and oxidizing agents follow. The process of reduction is strikingly presented in the operation of the blast furnace, magnesium burning in dry ice, and thermite welding. Everyday examples of oxidation and reduction conclude the picture." Producer

jh-sh-c Gulde

jh-sh-c Gulde

Spectacular experiments in crystallization. 8min 16-si-\$10.67 35-si-f-nf-apply Bray

"The growing of crystals of ammonium of zinc, fused salicin, and other chemicals, under the microscope." Producer

550 GEOLOGY

551 Physical geography

earth. (General science ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry The earth. 12min 551

By Morris Meister, head of science de-partment, Haaren high school, New York

"Relations to other planets, the sun, eclipse, corona, the earth's surface, cold formation." Texas

el-jh Guide

Earth's rocky crust. (Harvard univ. natural science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1931? Erpi 551

sd-nf-\$100 1931? Erpi 551

"Presents physiography in its dynamic aspects, and aims to show that the same forces which have shaped the earth as it is today are still at work further changing it. In the slower processes, this effect is obtained by the use of models and diagrams, which show a thousand year process taking place in a few seconds. The part the Water Cycle plays in shaping the earth is emphasized. The formation of igneous, sedimentary, and metamorphic rocks is clearly illustrated by models and animated diagrams. The ceaseless action of those forces which cause mountains to crumble and become soil are plainly shown." Harvard jh-sh-c Guide

earth. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry Our earth. 12min

"A study of the forces which are building up or tearing down the earth's surface, and a study of weather and weather fore-casting." Iowa univ. el-jh Guide

551.2 Earthquakes. Volcanoes

Earthquakes. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1928 Films of commerce

Produced by Pathe
"Damage of the great Japanese earthquake; the quake at Santa Barbara; tectonic earthquakes; rocks and how they
are elastic; seismographs for detecting
earth shocks; methods of recording earthquakes." Iowa state college

ih-sh

mation of volcanoes and geysers. 11min 16-si-\$20 35-si-f-nf-\$40 1922 Soc. Formation geysers. 551.2 for visual educ.

By W. W. Atwood
"In addition to the diagrammatic method, motion pictures are shown of volcano eruptions and of geysers. Both subjects are visualized step by step." Producer Guide

of everlasting fire.
Bray Kilauea—the house of everlasting 8min 16-si-\$8.52 35-si-f-nf-apply

"Pictures of the great volcano of Hawaii; four miles across the crater to the rim of the fire cup; one hundred foot climb to photograph lava boiling. . Near views of the river of fire flowing beneath." Producer

Kilauea volcano, Hawaii. 15min 16-si-\$20 35-si-nf-\$75 1924? Baker 551.2 35-si-nf-\$75

This was taken over a period of years beginning in 1918 and ending with the big explosive eruption of 1924. It shows the fern-bowered approach, steam clouds which rise a mile high, a view into the pit, and the law streams and foundations at night in red color

Volcanoes. 15min 16-si-\$24 1931 Fast-551.2

"Quiet overflow types are contrasted with volcanoes having explosive eruptions. Products of volcanoes and the life history of a volcanic cone. Subjects include Hawaiian volcanoes, the Palisades, eruptions of a South American volcano and Mt. Vesuvius, and a recent cinder cone of Lassen Peak." Producer
"Unusually striking picture, showing formation of volcanoes by animated drawings, and by means of telephotography, volcanoes in eruption, and a seething crater a mile or more in diameter, in colors." Minnesota sh Guide

canoes. (Harvard Pathe ser.) 1R 16-si-\$24 35-si-nf-\$60 1928 Films of com-

Produced by Pathe
"Study of the ways in which volcanic activity is changing the surface of the earth.
The explosive and the quieter types of eruption are contrasted. Eruptions of Vesuvius, Etna, Kilauea, and other active volcanoes." Indiana Guide

Volcanoes in action. (Univ. of Chicago physical science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 551.2

Supervised by Dr Carey Croneis
"Presents by photography, evidences of past volcanic action. Animation, combined with photography, explains many of the more important phenomena of volcanism such as dikes; batholiths; sills; laccoliths; metamorphism; and products of volcanism including lava, cinder, and ash; types of volcanic cones; and the distribution of active and inactive volcanoes throughout the world." Iowa univ.

Jh-sh-c Guide

What

at causes earthquakes. 15min 16-si-\$19.66 35-si-f-nf-apply Bray 551.2 "Nature, source and action of earth-quakes according to scientific theory. Japanese Earthquake of 1923 is shown. Study of the tidal wave is explained. Pic-tures showing devastation wrought by earthquakes."

551.3 Erosion

CCC fights erosion. 1R 16-so nf-loan 1935 U.S. agric. 1R 16-sd-loan 35-sd-551.3

A Forest service film
"The Civilian Conservation Corps
work on gulley erosion control." Prod
jh-sh-c Producer

Cycle of erosion. rosion. (Harvard Pathe ser.) 16-si-\$24 35-si-nf-\$65 1929? 15min Films of commerce 551.3

Also available in a version edited especially for elementary schools (1R 16-si-\$24 35-si-nf-\$60)

Cycle of erosion for individual streams and for broad regions. The progressive development of valleys and regions through the stages of youth, maturity and old age.

Selected landscapes are presented and classified so as to aid the student in his recognition of erosion stages in his own field observations

Formation of soil. 15min 16-si-\$24 1933 Eastman

"Introduces the student to the rock-soil cycle by means of demonstrations, animations, and actual photography. The story of the disintegration of rock includes the work of the weather, stream erosion and transportation, glaciers, wind and waves, rain and air, and plants and animals." Producer jh-sh-c Guide

Wearing away of the land. (Harvard univ. 10min 16-sd-\$50 551.3 natural science ser.) 10n 35-sd-nf-\$100 1931 Erpi

"Many forces wear away the land, but what is worn away in one place goes to build up in another. Graphically, this film presents another of the basic geological facts, driving its points home with scenes taken all over the world, where there were formations which succinctly told a story. How rocks are decomposed; how caves and sink holes are made; and how glaciers are formed and the work they do; how blowing sand erodes the surface of the earth; and how the waves are clearly illustrated." Harvard Jh-sh-c Guide

Work of the atmosphere. 11 35-sd-nf-\$100 1935 Erpi 11min 16-sd-\$50

This film shows how the atmosphere plays a part in altering the earth's surface thru the disintegration of rocks, erosive action of wind and sandblast action on rocks and trees. It shows the formamation of rain and how the atmosphere works with surface water, how it is necessary to the formation of soil and in fact for life

sh-c Guide

551.31 Glaciers

Geological work of ice. (Univ. of Chicago physical science ser.) 11min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 551.31

Considers gradational work of ice in fracturing of rock in freezing weather. By means of animation gives the story of glaciers showing advances and retreats of vast continental glaciers of our continent in past geological ages

Jh-sh Guide

ciers. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929 Films of Glaciers. commerce 551.31

Produced by Pathe

Classification, modes of origin, motion and characteristics of existing glaciers as well as work they are doing in changing the landscape from the standpoint of erosion and deposition

Study of a mountain glacier. 14min 16-si-\$24 35-si-nf-\$50 1921 Soc. for visual

"Dr. W. W. Atwood appears in person before a blackboard to tell us how a glacier begins and grows. Step by step he pictures, in graphic chalk diagrams, snow gathering high among the mountains, its weight causing ice to form, and the moving mass of ice making its slow way down the mountain valley. Magnificent scenics follow each point, showing parallel stages in glacier formation today. The

Study of a mountain glacier—Continued glacier is shown reaching the sea, where the ends break off and float away as icebergs. Other drawings, motion picture closeups and panoramas visualize the origin of moraines, crevasses, 'ice tables,' glacial rivers, glacial valleys, etc.' Producer sh Guide

551.36 Coast changes

 Shore
 deposits.
 (Harvard Pathe 15min 16-si-\$24 35-si-nf-\$60 1929?
 ser.)

 Films of commerce
 551.36

Produced by Pathe

Produced by Pathe

"How incessant pounding of waves against a shore is an important factor in shaping shore lines is portrayed in this film. The picture shows how the nature of the bordering cliffs determines the character of beach material. Excellent examples of shore formations in this film are those of Plymouth, Massachusetts; Nahant, Massachusetts; Boston Harbor; and Rio de Janeiro." Indiana

jh-sh

Shore lines and shore development. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929 Films of commerce 551.36

Produced by Pathe

Produced by Pathe

"A study of the forces which are shaping the coast lines of the continents and the shores of lakes. The picture considers the two main types of waves commonly developed in the sea, and shows the work which they accomplish in changing the shore line. Both kinds of work accomplished by waves and currents, erosion and deposition, are shown by the resulting beaches, cliffs, caves, bars, spits, etc. The fury of storm waves is emphasized."

Distributor

Study of shore features—bold shore. 10min 16-si-\$20 35-si-f-nf-\$40 1921 Soc. for visual educ.

visual educ.

"Designed to show how, by the action of water, rough and rocky shore lines are given greater and more magnificent indentations. Dr. W. W. Atwood draws as cross-section of sea level, waves and sea cave. He shows how the under-cut shore above the cave collapses; how waves sometimes cut through weak places in the rock to form arches. Motion pictures show a panoramic view of an arched rock near shore. The formation of gravel bars and land-tied islands is traced, and a fjorded coast-line is pictured." Producer

Guide

Guide

Study of shore features—low shore. 12min 16-si-\$24 35-si-f-nf-\$50 1921 Soc. for visual educ.

"Designed to illustrate how wave-action gradually changes a low shore line from a shore of bays and indentations to one of comparatively smooth lines. Dr. W. W. Atwood, in one of his famous 'chalk talks,' visualizes the work of the sea in building banks, reefs, bars and capes. Such splendid harbors as those of Provincetown, New York, Presque Isle Bay on Lake Erle and Duluth on Lake Superior, are shown to be the result of the building of sand hooks." Producer

Guide

Work of waves. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 551.36

How waves change the coast lines by cutting and grinding the rocks; the formation of beaches, islands, sandbars, cliffs, bays. Movement of water; currents in storm; littoral currents el-jh

551.37 Aerial erosion

Work of the wind. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 551.37

"Wind forming sand dunes, changing shape of canyon walls; enveloping forests, farms, destroying houses, boring into wooden headstones; sand shapes formed by wind. The effect of wind on trees and their foliage." Producer el-Jh

551.4 Surface features of the earth

Mountain building. (Univ. of Chicago physical science ser.) 11min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 551.4

Supervision of Dr Carey Croneis

Supervision of Dr Carey Cronels
"This film, by employing animation and
models, reenacts significant events in geological history pertaining to mountains and
movements of the earth's crust. We can
actually see and experience the subsidence
of the mouth of the Hudson River to form
the present harbor of New York; the
events that have proceded in the story of
the Appalachian Mountains; and the story
of the famous and spectacular Lewis
Overthrust in the Rocky Mountains. The
film opens with a photographic survey of
the type of evidence which constitutes
the basis of these interpretations, and
closes with a consideration of the significance of these phenomena to mining and
structural engineering." Iowa univ.

sh-c Guide

551.44 Caves

Caves in limestone and coral growth. 15min 16-si-\$24 35-si-nf-\$55 1922 Soc. for visual educ. 551.44

for visual educ.

"How water seeping through the earth's crust wears away the softer parts of some ledge of rock many feet below the surface. In this way underground tunnels and caves are made. Then, step by step, the diagrams picture how constant dripping of water from above, filled with lime particles, causes stalactites and stalagmites to form. After a time some of these unite, forming columns that divide the cave into rooms. What coral is, where it grows, and the kind of land it helps to make, are shown by Dr. Atwood in this . . . chalk talk. He explains the conditions most favorable for coral growth, the origin of 'fringing reefs,' 'barrier reefs,' circle reefs,' the effects of a raised sealevel, etc. The tremendous size of some of these circle reefs is . . . visualized." Producer jh-sh Guide

551.48 Rivers

Sculpture of the land by rivers. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929 Films of commerce 551.48

Produced by Pathe and is a companion to "Cycle of Erosion," class 551.3
"Study of the erosion of the land surface by running water. This picture accom-

Sculpture of the land by rivers—Continued plishes two things; first, gives a good conception of the slow, but relentless wear of the land surface by running water, as seen in the case of Ausable Chasm, the Dales of the Wisconsin River and the Grand Canyon; and second, shows, by means of an experiment on a small scale in the laboratory and by views of several streams just how a river does its work, eroding the land and transporting the debris." Distributor

jh-sh Guide

Work of rivers. 14½min 16-si-\$24 35-si-nf-\$55 1921 Soc. for visual educ. 551.48

A chalk talk by Dr W. W. Atwood "Illustrating the evolution of river valleys through youth, maturity and old age... Shows how through thousands of years rivers convert the land into a succession of broad valleys. At first the valleys are steep and sharply cut. Diagrams illustrate how young valleys like the Royal Gorge of the Arkansas and the Grand Canyon of the Colorado were formed, and then the screen shows them in motion picture. As maturity approaches, the steep walls become rounded slopes. In old age the valley is broad and low, the home of a slow, winding stream." Producer A chalk talk by Dr W. W. Atwood

jh Guide

Work of rivers. (Univ. of Chicago geology 11min 16-sd-\$50 35-sd-nf-\$100 ser.) 1935 551.48

By Dr Carey Croneis, professor of geolo-y, University of Chicago

By Dr Carey Croneis, professor of geology, University of Chicago

"The erosion cycle of water on the earth's surface. The main story is introduced with a brief portrayal of the water cycle in nature. A comprehensive presentation of the cycle of a river from its very beginning to old age follows. The main story is integrated by motion pictures, specially taken for the picture, presenting examples from many parts of the country. Models and animated cartoons are employed to explain such special features as Niagara Falls, deltas, meanders, ox-bow lakes, rejuvenated rivers, lakes, water gaps, and sand bars." Producer

sh-c Guide

Work of running water. (Harvard univ. natural science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 551.48

35-sd-nt-\$100 1931 Erpi 551.48

"The greatest force in wearing away of the land is that of running water. Models and scenes from all parts of the world show how running water wears away the land. Many picturesque evidences of erosion are analysed. An unusually complete sequence on the formation of deltas and flood plains, splendidly illustrated by aerial pictures of the Mississippi bottom lands, and sand table models. The way in which rivers straighten their courses and how great canyons are formed are also clearly shown." Harvard

ih-sh-c Guide

Work of the river. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce

Produced by Educational films corporation of America

"Erosion by water considerably more powerful than by any other element. Navi-gation along Columbia River; salmon fish-eries; salmon jumping falls." Distributor

551.49 Ground water

Ground water. (Univ. of Chicago physical science ser.) 11min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 551.49

nf-\$100 1935 Erpi 551.49

"Story of ground water . . indicates its importance in changing the crust of the earth, its part in producing spectacular geological phenomena, and its direct significance to mankind. The film brings to our attention many phenomena that take place constantly below the surface of the earth, often without making themselves known. Artesian systems, springs, water tables, caves, wells, and artesian wells are explained by animation and illustrated photographically. Other more spectacular phenomena such as geysers, roaring springs, hot springs, sink holes, petrification, concentration of useful minerals, and geode fillings are explained and illustrated by the outstanding examples to be found in this country." Iowa univ.

jh-sh Guide

Work of underground water. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 551.49

Produced by Pathe

Produced by Pathe

"A study of the geologic work of underground water and the expressions of the result on the surface. Caves, sink holes and natural bridges sculptured by ground water because of its ability to dissolve mineral matter, as well as springs, artesian wells and geysers are considered. Animated drawings are extensively used to explain these phenomena. Actual photographs from the Great Diamond Cave of Arkansas show the results of deposition."

Distributor jh-sh

551.5 Meteorology

Back of the weather forecast. 2R 16-si-loan 35-si-nf-loan 1931 U.S. agric.

A Weather bureau film

"Shows how weather information is obtained and how forecasts are made after the information has been assembled and plotted on weather maps." Producer

Birth of a tornado. 6min 16-si-\$8.40 35-sif-nf-apply Bray

"Causes and effects of tornadoes; illustrated with . . . views by actual photography, combined with animated drawings." Producer

ids. 1R 16-si-loan 35-si-nf-loan U.S. agric. 1927 Clouds. 551.5

A Weather bureau film

"Important types of clouds, and the sig-nificance of some of them; scenes from nu-merous localities." Producer "Of general interest." Indiana

jh

Exploring the upper air. 1R 16-si-loan 35-si-nf-loan 1925 U.S. agric. 551.5

A Weather bureau film

"Flights by Weather Bureau meteorologists in airplanes, dirigibles, and free balloons to study upper-air conditions for weather forecasting." Producer

15min 16-si-\$24 35-si-Fair weather clouds. nf-\$60 1929? Films of commerce

551.5

Produced by Educational films corporation of America

"Cirrus, cumulus and cirro-cumulus clouds—how they look and what they mean. The nature of fog. The effect of temperature on clouds." Distributor

Foul weather clouds. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 551.5

Produced by Educational films corporation of America

"Nimbus, cumulo-nimbus, stratus and 'undecided' clouds; what they are and do. Also the fogbank." Distributor

Mysteries of snow. 12min 16-si-\$16.66 35-551.5 si-f-nf-apply Bray

"Snow scenes and close-ups of snow flakes, showing many intricate patterns of feathery and solid flakes." Missouri

Watching the weather above. 2R 16-siloan 35-si-nf-loan 1925 U.S. agric. 551.5

A Weather bureau film

"Aerial activity, including the army, the navy, the air mail service, forest fire airplane patrols, and airplanes in insect control; Importance of weather forecasting to successful aviation; how observations are made for flying weather forecasts. Of general interest." Indiana

Water cycle. 15min 16-si-\$24 1928 East-551.5

"Graphic presentation of the continuous circulation of water, from earth to sky and back to earth. Examples of evaporation, condensation, precipitation, storage, and run-off are given." Producer Jh-sh-c Guide

Weather forecasting. 15min 16-si-\$24 1931 551.5 Eastman

"Making observations, studying the sky, the barometer, maximum-minimum thermometer, hygrometer, anemometer, the rain gauge, sunshine recorder, self recording instruments. The weather map, charting observations, isotherms, isobars. Forecasting, reading the weather map, animated drawings show how the high and low pressure areas marked on the map move across the country and interspersed scenes show various kinds of weather produced, various means of reporting weather conditions." Ohio "Making observations, studying the sky,

ih-sh Guide

551.9 Agents of geologic work

Atmospheric gradation. (Univ. of Chicago geology ser.) nf-\$100 Erpi 10min 16-sd-\$50 35-sd-551.9

By Dr Carey Croneis, professor of geology, University of Chicago

"Reveals the numerous ways in which the atmosphere plays a part in altering the earth's surface... Shows how temperature variations result in the disintegration of rocks by spalling, and how temperature variation together with chemical action of the atmosphere results

in another type of disintegration called exfoliation. The action of the wind in eroding rocks is explained by animation and photography. The movement of sand, loess, dust, and volcanic dust over great distances on the earth's surface is . . . visualized." Producer

Jh-sh-c Guide

553 Economic geology

Sulphur. 30min 16-si-loan 35-si-nf-loan 1934 Bur. of mines

Produced by Douglas D. Rothacker and ade in cooperation with Texas gulf made in

sulphur company

sulphur company

"Reel one shows by animated photography how sulphur is melted 1,000 feet below the earth's surface by superheated water and is forced by compressed air to the surface where it is run into huge vats and solidified; also shows building of vats and blasting and loading of sulphur into cars. Reel two shows how sulphur is used—for drugs, fumigating and bleaching, in the preparation of dried fruits, in the rubber industry, in explosives, in the paper industry and for sulphuric acid. (Useful in geography, chemistry, general science and commercial geography (classes)" Am. museum of nat. hist. el-lh-sh

553.2 Coal

See Coal mining, 622.33. For the sake of keeping all material about coal together, the number 553.2 has not been used.

For Petroleum see 665.5

553.4 Metals

For description and metallurgy of various metals see subdivisions of 66 the

553.5 Building stones

Limestone and marble. 15min 16-si-\$24 1927 Eastman 553.5

"Demonstrates the relationship between limestone, chalk, and marble—quarrying, carving, and use of natural limestone manufacture of artificial limestone (cement)—quarrying of marble." Producer el-jh-sh-c Guide

Sand and clay. 15min 16-si-\$24 1928 Eastman

Eastman 553.5

"In conjunction with . . . 'Limestone and Marble,' tlisted above, and . . . 'Formation of Soil' class 551.3; this film should give the child an understanding of the rock-soil cycle in nature and its commercial significance. It shows the weathering qualities of granite, and the relationship between granite, quartz and sand. Artificial sandstone blocks are made, natural sandstone is quarried, cut into blocks, and fashioned into grindstones. Other processes such as the making of brick, tile, and pottery are shown. The film has been divided into the following units: sand, glass, clay." Iowa univ.

el-jh-sh-c Guide

553.6 Earthy economic minerals. Asbestos

15min 16-si-loan 35-si-nf-loan Asbestos. prior 1927 Bur. of mines 553.6

Made in cooperation with the Johns-Manville corporation
"Shows the blasting of asbestos-bearing rock, cobbing for the best fibers, crushing the fibers, shipment to factory and the making of many useful articles from asbestos. [Useful in general science and commercial geography [classes]" Am. museum of nat. hist. museum of nat. hist.

560 PALEONTOLOGY

Digging up the past. (Seeing Canada ser.) 12min 16-si-\$11.58 35-si-nf-apply Canadian gov't.

"Showing the Badlands of the Red Deer Valley, Alberta, the most prolific field in the world for Palaeontological research, and how dinosaurs are located and secured. The film also depicts the work of assembling the fossilized bones of prehistoric monsters at the Royal Victoria Museum, Ottawa." Producer "Useful in biology, nature study and physiography classesi" Am. museum of nat. hist. h-sh

570 Biology

Four seasons. 4R 16-si-apply 35-si-nf-Inst. cinema serv.

A series of four one-real subjects on spring, summer, autumn and winter "The first breath of animal and plant life in the Spring shows in the budding trees, the awakening woodchuck, the buck's shedding of his antlers, the birth of fawns. Summer brings trees in full bloom, Autumn sends birds on their flight to warmer climes, Winter ushers in a snow-covered world,—thus the cycle of the seasons is completed." Producer Ih-sh lh-sh

571 Archeology. Prehistoric and primitive man

Human adventure. 75min 16-sd-apply 35sd-nf-apply 1934 Shields

Produced by the Oriental institute of the University of Chicago with the tech-nical assistance of Erpi picture consult-ants, inc.

Scientific supervision by Dr James Henry Breasted, Director of the Oriental institute of the University of Chicago. Story written and told by Charles

institute of the University of Charles Story written and told by Charles Breasted
"A partial film record of the institute's fourteen archaeological expeditions in Persia, Palestine, Syria, Anatolia, Egypt and Iraq.. It would be a person with little imagination who could sit unmoved as loose-robed workmen's picks force back the earthy leaves of history and turn up the precious relics of long-dead civilizations—weapons made by men of the Stone Age, grains of Egyptian wheat that were sold in Joseph's time, the stables of King Solomon, the harem of Darius, the great obelisk of Persepolis, its lofty towers, the tablet of King Sargon on which was imprinted the impertinent footprints of a lowly mongrel." N.Y. Times

[h-sh-c Guide]

Looking back through the ages. 1½R 16-si-\$8.65 35-si-nf-\$29.37 1935 National park serv. 571

This film is a continuation of the film A visit to Mesa Verde national park"

This film is a Verde national will sted below Shows the cliff dwellings and the scientific excavations in more detail. Specimens of actual articles such as sandals and pottery are shown and explained and the restoration process is demonstrated Guide

Visit to Mesa Verde national park. 16-si-\$7.98 35-si-nf-\$27.07 1935 tional park serv. 1¼R Na-571

Made by the Visual Instruction section of the National park service in collaboration with the Office of education "This beautiful film presents the scenic wonders in 'Mesa Verde.' Many scenes show remains of Cliff Dwellings which are some of the best preserved and most extensive in America." Iowa univ.

Guide

573.4 Anthropogeography

People who live at the equator. (World geography ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 573.4

By De Forest Stull, Teachers' college, Columbia university
"Sets forth the conditions of life in the rain-forest and tropical jungle regions of the earth, and shows how man, both native and white, has adapted himself to his environment." Colorado el-Jh Guide

People who live by the sea. (World geography ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 573.4

By De Forest Stull, Teachers' college, Columbia university
"Depicts condition of life in the countries bordering the Mediterranean, shows the influence of the sea upon man; indicates man's use of the great ocean highways; outlines the great epochs in the development of the commerce of the world." Colorado

el-lh Guide el-Jh Guide

People who live in a crowded valley. (World geography ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 573.4

By De Forest Stull, Teachers' college, Columbia university Portrays crowded conditions of life on the delta and plain of a great river and points out the influence of isolation on the development of a people el-jh Guide

People who live in the Arctic. (World geography ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 573.4

By De Forest Stull, Teachers' college, Columbia university
"Icebergs. Eskimos pulling a whale ashore for food and utensils. Tundra. Eskimo children at play. Summer house. Building frame of boat from bone. Skinning seal. Preserving meat. Caribou. Family life. Approach of winter. Gathering fuel. Dog teams. Seals on ice floes. Grinding ice packs. Seal hunt. Walrus, Rounding up caribou herds. Building ice fence and igloos. Meal time. An Arctic storm." California el-jh Guide el-jh Guide

People who live in the desert. (World

pple who live in the desert. (World geography ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 573.4

By De Forest Stull, Teachers' college, Columbia university

"Manner in which man has overcome a hostife desert environment and to what extent this environment has hampered or assisted his physical, mental, and moral development." Iowa univ.

"City and country life along Mediterranean coast of Africa. Negro dwellers of Sudan. Life on desert." California el-jh Guide

People who live in the mountains. (World geography ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 573.4

By De Forest Stull, Teachers' college, Columbia university
"Contrasting home environment with that of another country, i.e., Switzerland, showing the effect of a mountain environment from the economic and human standpoint." Colorado

el-jh Guide

People who live on a great plain. (World geography ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 573.4

By De Forest Stull, Teachers' college, Columbia university
"Depicts conditions of life on a vast plain of great fertility, the Pampas, and points out the influence of such a region on the development of the people." Colorado el-jh Guide

People who live through industry. World geography ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 573.4 573.4

By De Forest Stull, Teachers' college, Columbia university
"The Rhine River and its tributarles, the Saar and the Ruhr; terraced vine-yards; minerals in the valleys; factories in the midst of farms; large cities at river junctions; raw materials and finished manufactured products; the workers' homes; their manner of living." Indiana el-jh Gulde

574 Physiologic biology

Reactions in plants and animals. vard univ. natural science ser.) 11min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi **574** 11min

16-sd-\$50 35-sd-nf-\$100 1931 Erpi 574

"After first characterizing the concepts of 'stimulus' and 'reaction,' the film presents a study of different types of reactions in plants and animals, Directed reactions in a field of force (tropisms) are studied first; then higher reactions including reflexes and chains of reflexes lead up to a review of nervous system activity. Such reactions as geotropism, photoropism, stereotropism, galvanotropism, and rheotropism are studied in detail. Timelapse photography is employed to illustrate geotropism (response to gravity)." Producer jh-sh-c Guide

580 BOTANY

Lupins. (Natural history ser.) 10min 16-sd-apply Gaumont British 580 580 "A general study of the Lupin from seed to seed, etc." Producer Guide Naturalized plant immigrants. 3R 16-siloan 35-si-nf-loan 1929 U.S. agric. 580 A Bureau of plant industry film

"Shows important crops established and industries developed by plant introduction and how imported plants are handled to prevent the introduction of plant diseases and pests." Producer

Tropic garden. 2R 35-si-nf-\$150 Harvard

"Specimens of plants native to hot cli-mates. The peculiarities of all these are aptly demonstrated by Professor Ames." Massachusetts

Massachusetts
"Near Cienfuegos in Cuba, Harvard
University maintains a botanic garden.
Thirty years ago only two trees relieved
the monotony of the plain where the luxuriant tropical garden now flourishes. There
are assembled from tropical regions the
world over, specimens of plants native
to hot climates. There are, among others,
the traveler's palm, the banana tree, the
sacred lotus of Egypt, the pawpaw, orchids,
ceiba trees." Iowa univ.

Where plants live. 12min 16-si-\$24 35-si-nf-\$50 1920 Soc. for visual educ. **580** Illustrates the different needs of plants as to soil, moisture, air, etc., accounting for the groupings in the United States

Jh Guide

581 Physiologic botany

Green plant. 15min 16-si-\$24 1933 East-

"Stresses the fact that living things are dependent for food upon the green plant. The latter's processes of food-making and growth are accurately diagrammed. Sunshine and chlorophyll, water and air, acting jointly, are seen to produce sugar and starch, which are stored in roots, stems, leaves, fruits." Producer jh-sh Guide

ves. (Natural science ser.) 10m sd-\$50 35-sd-nf-\$100 1936 Erpi Leaves. 10min 16-Structure, functions and types of leaves. Shows in detail the parts of a leaf and a cross-section shows the arrangement of cells and veins for the manufacture of food. The actual process of food-making is revealed by animation

e. (General science ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry **581**

By Morris Meister, head of science de-partment, Haaren high school, New York

city
"This film tells the marvelous story of plant life from the tiny seed to the tall tree. A view of a beautiful river bank overgrown with various forms of plant life introduces the subject and raises the question 'Where do plants come from, and how do they grow?' The question is answered with animated drawings showing germination, and then the life cycle of a single representative plant." Iowa univ. el-jh-sh Guide

Plant growth. (Harvard univ. natural sci-10min 16-sd-\$50 35-sd-nfence ser.) \$100 1931 Erpi

"Deals with the growth of plants. The pea is used as an example, and the film presents the complete Life History from the sprouting of the seed to the dispersal of the ripened seeds in the mature plant. The processes of pollination and fertilization are clearly shown by means of photography and by animated diagrams." Harvard el-jh-sh Guide

Plant life. (Harvard univ. natural science ser.) 11min 16-sd-\$50 35-sd-nf-\$100 ser.) 1931 Harvard

"Presents the chief functions of plant parts, illustrated by means of experiments and animated diagrams. The first part of the film shows the life properties of a plant—food intake, digestion, waste disposal, respiration, photosynthesis, reproduction and growth, and irritability. Then comes a review of plant forms—the algae, fungl, mosses, ferns, conifers, monocots, and dicots. Next, the fundamental organs of a plant are taken up, and finally, by means of experiments and diagrams, the functions of these parts are . . . demonstrated." Producer

sh

Queer diet. (Natural history ser.) 10min 16-sd-apply 35-sd-f-apply Gaumont British

"A study of how plants obtain the elements necessary for their existence." Producer

Guide

Roots. (Natural history ser.) 12min 16-sdapply 35-sd-f-apply Gaumont British

Details of the processes of the growth of roots are shown in this film Guide

Roots of plants. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 581

"The various forms of plant roots are first presented. Then time-lapse and micro-photography are employed frequently in the remainder of the picture to bring out the interesting processes of growth, structure and other characteristics. The functions of the root-cap and the root-hairs are . . presented. An experiment in osmosis is demonstrated and . . explained, followed by an animation of water absorption by the roots." Producer these Guide ih-sh Guide ducer

Seed dispersal. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 581

"Ways by which seeds of plants are scattered in order to insure the propagation of the species. The methods illustrated include dispersal by the wind, transportation by animals, and forceful propulsion from the seed-case. . Time-lapse photography. . Germination of seeds under various conditions. The struggle for survival in the plant world." Producer jh-sh-c Guide

Seeds and seedlings. 7min 16-si-\$20 35-si-nf-\$30 1920? Scientific film **581**

Produced by Charles F. Herm "Botanical observation illustrating the transformation of seeds to seedlings—bean plants, seeds, etc." Iowa state college jh-sh

Time-lapse studies of plant growth. 1R 16-si-loan 35-si-nf-loan 1933 U.S. agric.

An Extension service film Flowers opening and seeds germinating Growth and action not normally visible are shown by time-lapse photography 581.5 Carnivorous and insectivorous plants

Carnivorous plants. 5min 16-si-\$5.57 35-sif-nf-apply Bray 581.5 How insect-eating plants obtain their

Plant traps. 10min 16-sd-\$50 35-sd-nf-\$100 581.5 1931 Erpi

"Carnivorous plants have the unusual characteristics of entrapping and digesting insects and other small animals. The film shows how the pitcher plant lures insects to its trap, where they drown. The sundew, another carnivorous plant, is shown throughout its life cycle. The enfolding of insects by its leaf tentacles is presented . . by means of time-lapse photography." Producer jh-sh Guide

583 Flowers

Aristocrats of the flower world. 5min 16-si-\$6.48 35-si-f-nf-apply Bray 583

"Study of orchids; their origin, propaga-tion, and method of obtaining food and water." Producer

10min 16-sd-\$50 35-sd-nf-\$100 Dodder. Erpi 1931

"Entire life story of the dodder, one of the best known of the group of parasitic flowering plants, is shown by means of time-lapse photography, accompanied by an explanatory narrative. Among the more impressive features is the presentation of the dodder twining about the host plant. Animation aids in revealing details in the structure and operation of the suckers. The destructive character of this plant is demonstrated, as well as the beauty of the flowers." Producer el-jh-sh Guide

Evening primrose, mariposa tulip, Washington lily, hen and chickens, and others. ½R 16-si-\$7.50 Bell & Howell

Produced by Arthur C. Pillsbury Growth of these flowers shown by time-lapse photography

Flower life in Yosemite national park. 16-si-rent \$1.25 Kodascope 1R 583

By Arthur C. Pillsbury
"The following flowers are featured:
Knotwood, Thistle, Tidy Tip, Johnny Jump
Up, Mariposa Tulip, Hen and Chickens,
Dog Tooth Violet, Prickly Poppy, Monkey
Flowers, Fire Weed, Snow Plant (several
varieties), Blue Lilacs, White Lilacs, Snow
Drops, California Poppy and Milkweed."
Distributor

Beautiful pictures of flowers growing in the fields and also close-ups showing the gradual expansion and opening of flowers Beautiful

Flowers. 7min 16-si-\$20 35-si-nf-\$30 1920 Scientific film 583

Produced by Charles F. Herm
A visualization of the characteristic variation of forms and structure among garden flowers by time-lapse photography. In tint and tone jh-sh

Flowers at work. 10m nf-\$100 1931 Erpi 10min 16-sd-\$50 35-sd-

Animation and time-lapse photography show the parts and the physiology of flowers, types of flowers and methods of pol-

Flowers at work—Continued
lination. The relation of insects to crossfertilization is shown. The picture closes
by showing how cultivation has modified
the form of flowers
el-jh-sh Guide

From flower to fruit. 15min 16-si-\$24 1933 Eastman 583

"Remarkable time-lapse motion photomicrography shows the development of the rose, lily, and apple. The opening of a flower; the functions of the sepals, petals, stamens, and pistils. Close-ups of anthers, stigmas, pollen grains, bee, pollen basket on hind leg filled with pollen. Various methods of pollination, including artificial pollination. Living pollen grains are seen under the microscope. Animation shows the complete process of fertilization." Kentucky

el-jh-sh Guide

Germinating, and blackberry lily. ¼R 16si-\$7.50 Bell & Howell 583

Produced by Arthur C. Pillsbury Growth of these flowers shown by timelapse photography

Iris, lupine, pride of the mountains. ¼R 16-si-\$7.50 Bell & Howell 583

Produced by Arthur C. Pillsbury Growth of these flowers shown by timelapse photography

Orchids. 4R 16-si-\$7.50 Bell & Howell

Produced by Arthur C. Pillsbury

Growth of these flowers shown by timelapse photography

chids, lilies, iris, passion flower, chysan-

Orchids, lilies, iris, passion flower, chysanthemums, rose, lotus and cotton growing or opening and seed germinating. 1R 16-si-\$37.50 Wild flower preservation soc. 583

Produced by Arthur C. Pillsbury using tlme-lapse photography

Paper white narcissus. 7min 16-si-\$20 35si-nf-\$30 1930? Scientific film 583 Produced by Charles F. Herm

"Bulb propagation of the narcissus as carried on in Florida for commercial purposes." Kansas lh-sh

Poppy, wild parsnip. ¼R 16-si-\$7.50 Bell & Howell 583

Produced by Arthur C. Plllsbury Growth of these flowers shown by timelapse photography

Seed, and Chinese lily. 4R 16-si-\$7.50 Bell & Howell 583

Produced by Arthur C. Pillsbury Growth of these flowers shown by timelapse photography

Springtime miracle. 5min 16-si-\$6.58 35si-f-nf-apply Bray 583

"Wildflowers of the Yosemite Valley photographed by stop-motion as they are in process of blossoming; titles are from Lowell's 'Vision of Sir Launfal.'" Producer

Thistledown. (Natural history ser.) 12min 16-sd-apply 35-sd-f-apply Gaumont British 583

"A study of the Spear Thistle demonstrating the processes of fertilisation." Producer

Guide

Tiger lily, vesper iris, sprouting bean. 4R 16-si-\$7.50 Bell & Howell 583

Produced by Arthur C. Pillsbury Growth of these flowers shown by timelapse photography

Wild flowers. 15min 16-si-\$24 1930 Eastman 583

"Woodland, meadow and field flowers such as Hepatica, Bloodroot, Trillium, Azalea, Iris, Tidy Tip, California Poppy, and Blazing Star, live out their life cycles on the screen. Through time-lapse photography they are seen as they grow, blossom, and witt—all in an interval of a few minutes." Producer el-Jh-sh Guide

Wild flowers. 2R 16-si-loan 35-si-nf-loan 1928 U.S. agric. 583

A Bureau of plant industry film "Various wild flowers and the preservation of wild flowers. Contains views of violet, buttercups, anemone, phlox, and many others." Iowa state college

Wild flowers. 2R 16-si-\$35 35-si-nf-\$100 Wild flower preservation soc. 583

"60 eastern flowers each (reel) with instructive legends and showing magnolia and water lily opening and closing." Producer

587 Ferns

Fern. 30min 16-si-\$25 35-si-nf-\$75 1935 Harvard 587

"A rapid survey of various types of ferns, with their characteristic fronds and sori. The breaking of the sporangia and scattering of the spores, the bursting of the spores and their development into prothall completes the first step in this cycle. The second reel shows the development of the anthredia and archaegonia, fertilization, and the growth of the young sporophyte into a mature plant and the completion of the Life Cycle." Producer sh-c

589.2 Fungi

Fungus plants. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 589.2

"Major emphasis is given to the various mushrooms whose growth and reproduction are illustrated by time-lapse photography and animation. Molds and other fungi are also presented by these same techniques. The economic importance of these plants is definitely shown by both the photography and the narrative in their use as food, their destruction of dead organic matter and their cause of disease in plants." Producer el-jh-sh Guide

Mold and yeast. 8min 16-si-\$12 1930 Eastman 589.2

"Close-up of moldy orange, a moldy shoe, mildew on cloth, moldy bread. Magnification of bread mold showing hyphae with spore cases. Photomicrographs of ripened spores. Development of mold seen through microscope showing plus and strains, zygospore, movement of plasm. Photomicrographs of yeast plants showing formation of buds. Use of yeast." Ohio el-jh-sh Guide

Myxomycetes or slime molds. 30min 16-si-\$50 35-si-nf-\$150 1931 Harvard 589.2

si-\$50 35-si-nf-\$150 1931 Harvard 589.2

"Deals with those very interesting but little-known group of border-line organisms which are sometimes plants and sometimes enimals. The first reel shows scenes of the native haunts of the slime molds, and several types of fruiting bodies, the breaking open of a spore, the release of a colorless, flagellated swarm cell, which swims around at first, but later loses its flagella and becomes amoeboid. In the second reel, the large mass of protoplasm moves about in search of food. This movement by reversible streaming of the protoplasmic 'network' as well as the 'peristaltic' wave in the advancing edge, where digestion takes place, is . . . shown." Producer

589.3 Rockweed

Rockweed. 15min 16-si-\$25 35-si-nf-\$75 1929 Harvard 589.3

"Life History of the common rockweed which grows along North Atlantic sea coasts... Close-ups show the reproductive tips, the 'branches' of sperm-sacs within, the bursting of these sacs and the releasing of the individual sperm cells whose lashing cilia drive them rapidly through the water. Likewise is shown the development of the egg through successive divisions from a single cell, its release from the egg-sac, its dramatic fertilization by the sperm, and the final growth of the new plant till maturity is reached and the Life Cycle once more begins." Producer

sh-c

589.95 Bacteriology

Armies of health and disease. (Health and hygiene ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 589.95

By Benjamin C. Gruenberg, formerly of a American association for medical

the American association for medical progress

"A study of nature and appearance of bacteria, pasteurization, bacteria as a cause of disease, immunization from certain diseases through inoculation, preparation of vaccines and serums, and the life of Pasteur." Colorado

el-Jh-sh Guide

Bacteria. 12min 16-si-\$18 1930 Eastman 589,95

An agar culture medium is made and bacteria from vinegar, water, rich earth and dust are grown, stained and examined microscopically. Cocci, bacilli and spirilla are shown

el-jh-sh Guide

Getting acquainted with bacteria. 1R 16si-apply 35-si-nf-apply Soc. for visual educ. 589.95

educ.

"Foundation for lessons both in sanitation and nature study. It introduces the child to the wonderful field of microscopic organisms and shows that most of the bacteria are as harmless as buttercups and daisies.

Presents the essential facts about the way in which bacteria are grown and handled in the laboratory. The three typical shapes of bacteria—coccus, bacillus and spirillum—are...demonstrated. Size comparisons that appeal to the child-mind make plain the extreme minuteness of bacteria." Producer

"An excellent picture for schools, showing elementary facts and methods in bacteriology." N.Y. (State). Dept. of health Guide

w plants and animals cause disease. (Science of life ser. no. 5) 1R 16-si-\$35 35-si-f-nf-apply Bray 589.95

"Types of bacteria and the diseases they cause; antiseptic; animal parasites; sterilization; action of white corpuscles; tuberculosis bacteria—fresh air and sunshine their enemies." Indiana Jh-sh

Man against microbe. 15min 16-si-loan 35-si-sd-nf-loan 1932 Metropolitan life

Produced by Audio cinema, inc.

Produced by Audio cinema, inc.

"This film covers three hundred years of progress in public health and medicine. It reveals Van Leeuwenhoek, the first man to see micro-organisms through a micro-scope; Pasteur, with his new way of killing germs by heat and fighting other germs with vaccines. Lister demonstrates the third means of destroying germs—carbolic spray. We then see the discoverer of the tubercle bacillus and the cholera germ, Robert Koch. Emile Von Behring is shown saving the first human being by diphtheria antitoxin. The film returns to a scene picturing a modern baby being immunized to diphtheria and ends on a note of optimism in the battle against disease." Distributor jh-sh

Micro-organisms of hay-infusion. 7min 16-si-\$20 35-si-nf-\$30 1930 Scientific 589.95

Produced by Charles F. Herm
Biological study of a day-by-day infusion, visualizing the protozoan fauna observed in a drop of pond water
sh

590 Zoology. Animal life

(Harvard univ. natural sci-10min 16-sd-\$50 35-sd-nf-Animal life. ence ser.) \$100 1932 Erpi

"There is first a rapid review of the main "There is first a rapid review of the main types of animals—protozoans, sponges, coelenterates, echinoderms, worms, molluscs, crustaceans, insects, and vertebrates. The rest of the film then deals with animal functions—locomotion, food intake, digestion, waste disposal, respiration, and nervous system activity. These points are illustrated by the use of microscopic and larger animals and by animated diagrams." Harvard el-jh-sh Guide

591 Physiologic zoology

591.3 Embryology

Development. 7min 16-si-\$20 35-si-nf-\$30 Scientific film 1930? 591.3

Produced by Charles F. Herm

Paradise fish embryo from blastoderm stage to hatching as visualized thru micro-scopic observation Jh-sh

Development of a bird embryo. 16-si-\$24 1932 Eastman

"An elementary treatment, by means of photomicrography and diagrams, using the chick for early stages, the wren for the last stage and hatching. Technique of

Development of a bird embryo—Continued mounting the embryo for observation, establishment of circulation, action of the heart, and development of three membranes—yolk sac, amnion, and allantois."

Producer sh Guide

Embryology of the egg. 1R 35-si-nf-loan 1921 U.S. agric. 591.3

A Bureau of animal industry film "How the hen's fertile egg develops into the chick and the infertile egg does not. A short picturization of the beginning of A short life." I Producer

591.5 Habits and behavior of animals

Animals of the zoo. 10m sd-nf-\$100 1933 Erpi 10min 16-sd-\$50 35-591.5 The lion, tiger, eland, giraffe, bison, hippopotamus, rhinoceros, elephant, monkeys, sea lions, brown, black and polar bears and the different kinds of food they eat el Guide

Housing problem. 151 si-f-nf-apply Bray 15min 16-si-\$17.95 35-591.5 "How Nature provides shelter for the animal world. Shells, nests, webs, dens, lairs, and finally a review of Man's solution of his housing problem, from the prehistoric cliff-dwelling to the modern skyscraper apartment." Producer

Life in the hedgerows. (Secrets of life ser.) 8min 16-sd-apply 35-sd-f-apply Gaumont British 591.5

"Shows how the hedgerows are used by many animals and birds to conceal their homes." Producer

Mixed bathing. (Secrets of life ser.) 9min 16-sd-apply 35-sd-f-apply Gaumont Brit-

"A number of the large mammals and a few of the most striking foreign birds bathe in distinctive fashion. The gorillas, Moina and Mok provide an extraordinary scene in discovering the superior quality of running water over water in a mug for drinking. The young sea-lion (like many aquatic mammals) shows itself reluctant to take a plunge and swim. [Useful in nature study [classes]" British film inst.

Guide

Nature's nurseries. 16min 16-si-\$19.78 35si-f-nf-apply Bray 591.5 "Studies from zoological gardens and from wild life." Producer "Fish eggs. Alligator eggs. Spider eggs and bables. Hummingbird nest. Feeding young. Deer and young. Sheep and young. Bear and young." California

591.57 Means of protection

Animal camouflage. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 591.57

Produced by Pathe

"Microscopic and slow motion photography provide intimate studies of crabs, worms, caterpillars, toads, lizards, the 'Walking Stick,' the 'Walking Leaf,' 'Praying Mantis' and other animals and insects that employ protective mimicry in the struggle for existence." Distributor el-sh el-sh

How living things find a home on the earth. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 591.57

By G. Clyde Fisher, of the American museum of natural history "Useful in nature study. Prehistoric animals, penguins, ostriches, snowshoe hare, hermit crab, frogs, toads, and butterflies are shown." Illinois "The general aim is to impart a knowledge of the more fundamental laws of nature through which all living things are adapted to their environment, and at the same time to create accurate and intelligent habits of observation and logical correlation of facts by pupils. Other objects are to suggest the influence of heredity and environment upon the development of animal life, to show how animals are protected by resembling their surroundings in color or form, to show how animals hide from their enemies in other ways, and to show how color helps animals secure their food." Iowa univ. el-Jh Guide

How nature protects animals. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 591.57 sd-50 35-sd-nf-\$100 1931 Erpi 391.3/
"Various ways by which animals are provided with devices to conceal themselves, either for the purpose of protection, or as a means of securing food. Examples are given of natural protection through fleetness of foot, mimicry, protective coloration, armor and secluded homes. Included in the picture are the rabbit, raccoon, giraffe, tiger, lion, zebra, goat, pheasant, looper caterpillar and the beehawk moth." Producer el-jh-sh Guide

Nature's armour. 15min 16-si-\$18.36 35-sif-nf-apply Bray 591.57

"Various characteristics bestowed upon animals for protection and for obtaining food, such as the crocodile, rhinoceros, elephant, lion." Iowa state college ei-jh-sh

591.9 Geographic distribution of animals

Animal and bird life in Yosemite national park. 8min 16-si-apply Kodascope 591.9

By Arthur C. Pillsbury "The photography of this subject was taken under very difficult conditions, and is not altogether perfect, but the unique subject compensates in some degree for this defect. It will be appreciated by nature lovers and others interested in wild life of the sort described." Producer

Animals of the Yellowstone. 1/4 R 16-si-\$5 Burton Holmes 591.9 Bison, wild deer and hungry bears

Big game trails. 2R 16-si-loan 35-si-nf-loan Canadian nat. ry. 591.9

"Wild life within Jasper National Park nd big game hunting outside its boundaand big game h

Canoe trails through mooseland. (Seeing Canada ser.) 13min 16-si-\$9.66 35-si-nf-apply Canadian gov't 591.9

A canoe trip through the wilds of north-A cance trip through the wilds of north-eastern Canada containing glimpses of picturesque woodland and waterways. Also many close-up action views of moose, deer, bear, beaver and other wild life on land and water Canoe trails through Mooseland—Continued

"[Useful in] geography, biology and nature study [classes]", Am. museum of ture stud el-jh-sh

Monarchs of the plains. (Seeing Canada ser.) 10min 16-si-\$7.80 35-si-nf-apply Canadian gov't.

canadian govt.

"Visit to Buffalo Park, Walnwright, Alberta, where the Dominion Government has established a great national reserve for the once nearly extinct buffalo, as well as yak, elk, and other wild life. Besides, interesting views of these former monarchs of the plains and how they are cared for, this film depicts the cross-breeding of buffalo with domestic cattle to develop new hardier animals." Producer

"'[Useful in] geography, nature study, and biology [classes]" Am. museum of nat. hist. el-Jh-sh el-jh-sh

Rocky mountain mammals. 15min 16-si-\$24 1931 Eastman 591.9

"Mammals of the Rocky Mountain region are depicted living in zones where food, shelter, and climatic conditions are favorable. Mammals of the open plains, the heavy forests, the dwarf timber, and the barren heights." Indiana

Shows antelopes, coyotes, mule deer, a mountain lion, grizzly bear, pack rat, cony, mountain sheep, a marmot, and many views of mountain goats

Guide

Guide

Some larger mammals. 15min 16-si-\$24 1931 Eastman 591.9

This film supplements "Rocky mountain mammals" listed above
Herds of bison, black bears, Virginia deer, wapiti, and moose in their several types of wild surroundings
Guide

Tame wild life of Yosemite. (Travelette)
1R 16-si-\$24 Haselton 591.9

1R 10-S1-344 Mastion 591.9

"Golden Mantled ground squirrel; California ground squirrel; Western tanager; mule deer; Sierra grouse; San Joaquin Valley elk; forest of antiers; blue-fronted jay; young black-headed grosbeaks and robin; young Sierra chickadee; American black bear." California
Bears only, may be secured on a little more than a quarter of a reel (16-si-\$7.50) and Deer alone ¼R (16-si-\$6)

591.92 Marine and fresh-water fauna

Beach and sea animals. 10 35-sd-nf-\$100 1931 Erpi 10min 16-sd-\$50

By Dr. G. Clyde Fisher, of the American museum of natural history
"Among the animals brought to the screen are the starfish, sea-urchin, crab, cuttle-fish, octopus, crayfish, lobster, shrimp, snail, scallop, and the sea-cucumber. The physical structure and activities of these animals are presented in an intimate way. The balance in nature or interrelations of various animals is . . . illustrated, special emphasis being placed on their methods of protection." Producer

el-jh-sh-c Guide

Pond and stream life. 2R 16-si-apply 35-si-nf-apply Soc. for visual educ. 591.92 "After an introduction to the sprawly nymph of the dragon-fly and later to the mature fly itself, special lenses bring its jaws and wonderful jeweled eyes into nearer view. A photomicrograph of snail eggs shows the movements of embryo pond-snails within the gelatin; later one of the snails performs a tight-rope act along the sharp edge of a razor blade, to demonstrate a peculiarity of its 'foot.' Turtles, frogs and toads are studied at close range as they enjoy their dinners, a 'horse-hair' snake tangles and untangles itself, and a lively fight between a tiny crawfish and a waterbug takes place, while a fierce 'water-tiger' pursues his frantic prey." Producer sh Guide

10min 16-sd-\$50 35-sd-nf-Pond insects. \$100 1932 Erpi

"The diving water beetle, the mayfly, "The diving water beetle, the mayfly, and the dragonfly, as representative of this group of insects. Their life cycles are portrayed, as well as their food habits and struggle for existence. Among the events shown are the method by which the diving beetle lays its egg; a water beetle larva attacking a large tadpole; the mayfly molting after acquiring wings; the mayfly hiding from its enemies; and the remarkable mask of the dragonfly nymph." Producer
ih-sh-c Guide jh-sh-c Guide

Some seashore animals. 12min 16-si-\$18 1930 Eastman

Views of the anemone and its relative, the sea feather, feather dusters (marine tube worms)—one old specimen in its long, calcareous tube. Sea urchins from various angles. Close-ups of starfishes show how their tube feet assist them in feeding. A sunflower star swallows food; and the hermit crab and some of its seashore neighbors shore neighbors

Some water insects. 12min 16-si-\$18 1930 Eastman

"Striders skim along the surface—a water bug seizes and eats a minnow—a scorpion comes up for air—dragon and damsel files are treated in detail." Producer jh-sh-c Guide

Tiny water animals. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 591.92

Life processes and activities of amoebae and paramecia are shown with the activities of the amoebae given major emphasis. Reproduction of amoebae is presented. Reveals other interesting creatures, such as the wheel animalcule, chiloden, swan animalcule. Micro-photography is used sh Guide

Under-sea life. 8min 16-si-\$12 1932 East-591.92

Devoted to the fauna of the North Atlantic coast showing how special forms have developed biologically to fulfill certain functions. There are the puffers that swell far beyond their normal size at the approach of an enemy; the shark and the shark sucker; the sting rays and skates which have flattened themselves to the sea floor. There are squid, sea horses, snails, crabs, and sea robin "Suited to classes in biology as well as nature study." Producer Guide

593 Protozoans. Elementary animals

Adventure in Tripoli. 8min 16-si-\$10.58 35-

"Showing through a microscope the beautiful radiolaria from the ocean floor; illustrates its use by gem cutters and instrument makers for polishing and grinding." Producer

Amoeba. 1R 16-si-apply Edited pictures 593

of the amoeba study and simple vorticella, using animated diagrams

(Biology ser.) 9min 16-sd-apply f-apply Gaumont British 593 Amoeba. 35-sd-f-apply

"The production of pseudopods is shown—the amoeba pursuing and capturing its prey and ingesting living organisms." Pro-

Guide

Elementary animals. 1R 16-si-\$25 35-si-nf-\$75 Harvard

"Motion, feeding (growth) and a simple muscular activity of the protoplasm are demonstrated by Amoebas." Massachu-

Hydra. 1R 16-si-apply Edited pictures 593 Study of the structure and functions of this tresh water polype

Living cell. 15min 16-si-\$24 1929 East-593 man

"Single-celled organisms, appearance of east under microscope, the amoeba, moeba feeding, growing, and dividing, "Single-celled organisms, appearance of yeast under microscope, the amoeba, amoeba feeding, growing, and dividing, the paramecium. Many celled organisms, the hydra, flatworm, tissue cells, a shred of muscle, cilliated epithelium, cell division, dividing plant cells, animal cells dividing." Oho el-jh-sh Guide

Microscopic animal life. 15min 16-si-\$24 593 1930 Eastman

"Photomicrographic views show four single-celled animals: amoeba, paramecium single-cented animals: amoeda, paramethum (slipper-shaped protozoan), stentor (trum-pet-shaped protozoan), vorticella (bell-shaped protozoan)—and one remarkable multi-celled animal, the rotifer ('wheel' animalcule)." Producer

jh-sh-c Guide

Obelia. (Biology ser.) 8min 16-sd-apply 35-sd-f-apply 1936 Gaumont British 593

"The precise habitat is given; on tangle-weeds from low water down to 20 feet colonies of this strange animal in its nutritive phase are found in large numbers. The minute polyps are seen to contract spasmodically in feeding. Still more fascinating are the graceful movements of the free-swimming medusoid individuals of both sexes once they have merged from the flask-shaped gonothecae. These translucent, exquisitely fringed shallow bells alone survive in the winter months and suffice to establish new colonies of sedentary habit in the spring. Excellent photography. The film is all too brief, though very satisfying in making real the connection between the two generations. British film inst. film inst.

Protoplasm—the beginning of life. (Science of life ser. no. 1) 1R 16-si-\$35 35-si-f-nf-apply Bray 593

"The earth before life appeared—earliest forms of life traced through the study of geology. Simplest forms of life. Characteristics of living things—movement, irritability, assimilation, and reproduction—shown in amoeba, stentor and other simple forms. Protoplasm shown in characteristic motion in one-celled and many celled hosts. Growth and reproduction suggested by views of familiar plant and animal life." California

Sea urchin. (Biology ser.) 11min 16-sd-apply 35-sd-f-apply 1936 Gaumont British

"Masses of laminaria at low-tide on a rocky shore are shown to hide the familiar species of Echinus. The movements of tube feet and pedicellariae are beautifully shown and their functions briefly explained. By a series of partial dissections in ordered sequence one gains a very good general idea of the reproductive organs and the alimentary canal in both sexes. One watches the extrusion of innumerable minute eggs, and later dense streams of sperms which are chemically attracted by the former. Fertilisation, membrane formation and segmentation are most convincingly shown. The embryo escapes from the membrane and part of its further development is seen. Precise references to dates add much to the value of the film. Excellent photography. Useful implost. "Masses of laminaria at low-tide on a

sh-c-Guide

Simple animal forms. 15min 16-si-\$25 35-si-nf-\$75 Harvard 593

"Deals with another great group of the Protozoa—the Ciliates. These are treated at length, giving a striking survey of the extraordinary varied adaptations and specializations of which protoplasm is capable." Massachusetts

593.4 Sponges

Sponge industry. 15min 16-si-sd-loan 1935 593.4 Rhodes

Narrated by Jean Paul King. The sound makes this decidedly an advertising film and those objecting to this should secure the silent film. It is a good presentation of the sponge fishing off the coast of Florida and the preparation and grading of sponges for market

593.9 Echinodermata

Marauders of the sea. 18min 16-si-\$22.13 35-si-f-nf-apply Bray 593.9

"Splendid studies of strange predatory life in the deep seas, especially the Star-fish and 'Portuguese Man-o-War' and their victims." Missouri

594 Mollusks

Life history of the pearl. 8min 16-si-\$9.58 594 35-si-f-nf-apply Bray

"How pearls grow; the life of the oyster selection and grading of pearls." lowa state college

Molluscs. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce

Produced by Pathe

Study of the more common molluscs—the oyster, octopus, cuttle fish and snail

Oysters. 15min 16-si-\$24 1932 Eastman

"Life history of the Atlantic oysters. Methods used in oyster 'farming,' fishing and canning. Also how pearls, formed in the Oriental pearl-oyster, are graded, drilled, and assembled into necklaces." Producer jh-sh-c Guide

Seaside friends and their country cousins. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 594

By G. Clyde Fisher, of the American museum of natural history
"Depicts the life functions and the structure of various invertebrates, portrays the life history of the oyster, and indicates some economic values of this type of animal life." Kansas

el-jh Guide

Sexual reproduction. 7min 16-si-\$20 35-sinf-\$30 1930 Scientific film

Produced by Charles F. Herm

"Microscopic study visualizing the characteristic differences existing between sperm and germ cell of the Atlantic oyster, method of fertilization, cell cleavage, cell division illustrating means by which the fertilized ovum passes from the one cell stage to the mulberry stage, thus reproducing a new individual." Texas jh-sh

595 Articulates

595.1 Worms

Earthworm. (Biology ser.) 18min 16-sd-apply 35-sd-f-apply 1936 Gaumont British 595.1

British 595.1

"By means of garden scenes in which a hungry bird figures, soil excavations, transverse sections, dissection in progress and diagrams, a very detailed and extremely interesting study of this familiar animal is presented. The ciliary action in the excretory tubules or nephridia arrests one's attention long before the process is actually mentioned, so perfectly is it portrayed. The reciprocal nature of fertilisation between two worms is made clear by a diagram with moving sperms. The time factor here and in relation to the development of the young worms within the cocoon is explicitly introduced. The film should be preceded and followed by practical work and then shown a second time. An extremely valuable film for any class studying the earthworm in detail. Excellent photography: the ovaries, living sperms in two stages, and the nephridia call for special comment. The diagrams are very helpful. Pace is appreciably too rapid in parts. . . [Useful in zoology and biology [classes]" British film inst.

sh-c Gulde

595.4 Spiders

Black-and-orange garden spider. 11min 16-si-\$24 35-si-nf-\$45 1922 Soc. for visual educ.

"Shows the complete metamorphosis of this familiar spider—the female Mirandi spinning her web—entangling her prey—enjoying the feast—laying eggs—hatching of the young, etc." Producer

Guide

Spiders. 15min 16-si-\$24 1931 Eastman 595.4

"Characteristic habits and development of several species. The units are: Struc-ture of the Spider; Spinning an Orb web; Rearing the Young; Trapdoor Spiders." Utah Jh-sh-c Guide

Spiders. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi

A presentation of the life cycle of the nursery-web spider and peculiar habits and characteristics of the orb-web, funnel-web and trap-door spiders. Shows home building ability and their fearlessness as hunters or providers

Jh-sh-c Gulde

595.7 Insects

For insect pests see class 632.7

Aphids. 10min 16-sd-\$50 35-sd-nf-\$100 1933 Erpi 595.7

"Deals with a very interesting creature. It shows that most aphids have no fathers or even grandfathers. Some are born alive, while others hatch from eggs; only a few have wings. Ants keep them as cows, while the aphid itself secures its food in an unusual way. It is beset by a host of enemies among which is man. These scenes are supplemented by an animated drawing of the aphid's life cycle." Producer

el-jh-sh-c Guide

Beneath our feet. 10min 16-sd-rent \$1.50 Bell & Howell 595.7

Bell & Howell

"The daily life of the tiny world that crawls beneath our feet. Through the magnifying lens we see the bee on its honey collecting tour, and the ant in its busy, bustling community. The Lady Bird Beetle meets some grotesque neighbors while strolling down a path whereon one false step means tragedy. The cricket sings a love song while the trapdoor spider constructs a trap door. The spider disapproves the cricket's song and the cricket hurriedly departs. But he escapes one enemy only to meet another. Though larger, he is no match for the many-legged centipede. The struggle is desperate, but the centipede's poison fangs eventually find a joint in the cricket's armor, and a cheerful chirp is silenced forever." Producer

Grasshopper. 1R 16-si-apply Edited pic-

Produced by Urban

"Study of their tiny city; close-ups of male, female and worker; hatching of lar-vae; methods of feeding." Distributor el-jh-sh-c

Killers. (Battle for life ser.) 1 sd-rent \$1.50 Bell & Howell 11min 16-

sd-rent \$1.50 Bell & Howell 595.7

"Another intimate study in macro-photography. Proving that the continued existence of insects depends upon their ability to destroy each other, we see the mantis, one of the most formidable of insect warriors, attack and devour an unfortunate butterfly whose means of defense is unavailling. But, in turn, the demon mantis is no match for the powerful and skillful wasp. Again, the wasp, clever though he may be, is a weakling when when forced into combat with a spider. Even the scorpion, a creature that commands the respect of all flying and creeping insects, is destroyed when he meets one of his own kind. In a spectacular battle, each injects into the other a poison that results in death to both fighters." Producer jh-sh-c

Life cycle of the ant-lion. 8min 16-sd-rent \$1.50 Bell & Howell 595.7

By Louis Tolhurst

Curious life history of an insect that bears the ridiculous title of 'Ant-lion,' though neither ant nor lion. Also laughingly referred to as the 'Doodlebug,' which, after a period devoted to the ingenious trapping of ants, becomes, through the magic of nature, a colorful and swiftly darting swamp fly. . Cinematography of special interest to students of entomology." Producer

jh-sh-c

Nature's handiwork. 16min 16-si-apply Edited pictures 595.7

Produced by Urban

"A study of the interesting life history of a number of moths and butterflies. Highly valuable for nature-study classes, and instructive to all." Washington

595.73 Termites

Termites. 15min 16-si-\$24 1930 Eastman

Subterranean termites are seen in the wood of an infested house. Worker and soldier caste are shown. Royal and supplemental kings and queens are compared. Rotten-wood termite nymphs burrow and tend eggs laid by the royal queen. A nymph molts. A soldier sounds a warning of danger and a colony is attacked by common black ants. Nymphs, alates, and de-alates are pictured. Shows how to locate termite colonies locate termite colonies Guide

595.76 Beetles

For films on beetles as injurious insects see class 632.7

10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 595.76 "Lifp
"Lifp
"Life histories of the tiger, ladybird and Japanese beetles. . Many rarely observed events in their lives are presented; some comic, some tragic. The economic relation of beetles to man is . . . brought out. Picture and narrative demonstrate how some beetles have been pressed into the service of man, while others are harmful and must be destroyed through ceaseless warfare carried on by man." Producer Jh-sh-c Guide

595.77 Flies

Blowfly. (Biology ser.) 17min 16-sd-apply 35-sd-f-apply 1935 Gaumont British

"The life-history of this common fly, frequently seen inside window panes and on food, is traced completely from the newly-laid egg, through the negatively phototropic larval stage and the pupal stage to the egg-laying, positively phototropic adult stage. The distinction in position of the eyes of male and female is clearly portrayed. Throughout, the time factor is introduced in a most satisfactory way. One sees distinctly in the growing larva, the alimentary canal, nervous system, spiracles and tracheal tubes; the pulsation of the heart is shown too. The mechanisms used by the six-legged insect as it emerges from the pupal case and when the wings expand are particularly

arresting. An outstandingly good film from which one learns precisely how to set about breeding these insects. . A few stills are used very effectively for comparison of successive stages in development and serve also for revision. [Useful in] biology, zoology, nature study and hygiene [classes]" British film inst.

jh-sh Guide

Fly as a disease carrier. (Science of life ser. no. 9) 1R 16-si-\$35 35-si-f-nfapply Bray

"Structure of the house fly; its feet, proboscis and crop, as related to the distribution of bacteria; the breeding and feeding habits of the fly, with special relation to spread of disease; also life history and practical suggestions toward extermination." Illinois

Greenbottle fly. 13min 16-si-\$24 35-si-nf-\$50 1922 Soc. for visual educ. .**595.7**7 "The work of the greenbottle fly, one on nature's scavengers, is traced in this reel. Producer

Guide

House fly. 15min 16-si-\$24 1933 Eastman 595.77

"Life history, depicting larva, pupa, and adult. The structure of the house fly, which helps to make it a health menace, is shown in motion photomicrographs. The dangerous habits, rapidity of breeding, and methods of control of this common insect are shown." Producer el-jh-sh-c Guide

House fly. (Natural science ser.) 10min 16-sd-\$50 35-sd-nf-\$100 1935 Erpi 595.77

"Portrayal of the life cycle and habits of this dangerous pest, along with a delineation of methods for its control." Pro-Guide

Our common enemy—the fly. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of com-

Produced by Pathe "Picture study of the house-fly from egg to maturity." Colorado

595.771 Mosquitoes

How the mosquito spreads disease. (Science of life ser. no. 8) 1R 16-si-\$35 35-si-f-nf-apply Bray 595.771

"Life history of the mosquito, malaria parasite and its cycle in the mosquito and in human blood. Prevention of malaria and yellow fever." Texas

Life history of the yellow fever mosquito. 15min 16-si-\$24 1929 Eastman 595.771

"Photomicrographic views of mosquito eggs floating in water—hatching, feeding, swimming, breathing of the larva—metamorphosis from larva to pupa, and from pupa to mosquito—adult mosquito biting and feeding." Producer el-Jh-sh-c Guide

Mosquito. 14min 16-si-\$24 1921 Soc. for visual educ. 14min 16-si-\$24 35-si-nf-\$55

"This reel rounds out one's intimate acqualntance with the aggressive mosquito. It shows the ponds and puddles where one or two hundred eggs are laid at a time; the hatching under water; the breathing Mosquito—Continued tube, abdomen and thorax under a microscope; the larvae or 'wrigglers' feeding on animal and plant life, rising to the surface for air and moulting three times; the pupae or 'tumblers' resting at the top of the water; the skin splitting, and the mosquito emerging and drying its wings."

Producer

Guide

Mosquito—public enemy. 2R 16-sd-loan 35-sd-nf-loan 1935 U.S. agric. 595.771 A Bureau of entomology and plant quar-

antine film
"Discusses the mosquito as a pest affecting man and beast, varieties and life history; safeguards and methods of control."

squitoes. 3R 16-si-loan 35-si-nf-loan 1933 U.S. agric. **595.771** Mosquitoes.

Bureau of entomology and plant quar-

A Bureau or entonessantine film
"The mosquito as a pest affecting man and beast; varieties and life history; safeguards and methods of control." Illinois "Scenes taken mostly in New Jersey and Florida." Texas

Singing and stinging. 15min 16-si-\$24 si-nf-\$60 1926 Films of commerce 15min 16-si-\$24 35-595.771

Produced by Pathe

"Life history of the mosquito, including microscopic views of the eggs floating in water, hatching, feeding, swimming, breathing of larva; development of larvae through stages into the mosquito. Methods of ridding places of the pest are also shown." Colorado

Stung! by Amos Quito. 12min 16-si-\$13.22 35-si-f-nf-apply Bray 595.771

"Public information on preventing malaria, made with cooperation of U.S. Public Health Service, Bureau of Fisheries, and American Museum of Natural History." Producer

595.78 Butterflies. Moths

Butterflies. 10min 16-sd-\$50 35-sd-nf-\$100 Erpi

"Illustrates the complete life history of the cabbage butterfly and the swallow-tail butterfly with their different characteristics and habits, including their role in nature, that of aiding in the cross-fer-tilization of flowers. Time-lapse photography is employed to show in a few seconds processes which require an hour or more. The destructiveness of the cabbage butterfly, as well as its unusual control by a natural enemy, is dramatically depicted." Producer el-jh-sh Guide

Butterflies and moths. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927

By G. Clyde Fisher, of the American museum of natural history
"Life history and metamorphosis of the monarch butterfly and the cecropia moth in detail, with some phases of transition in slow motion. The butterfly's tubed tongue; magnification of its wings; distinction between male and female; the caterpillar's feet, six with hooks and ten with suction cups; texture of the cecropia cocoon." Indiana el-lh-sh Gulde el-lh-sh Guide

Butterflies and nettles. (Biology ser.) 8½min 16-sd-apply 35-sd-f-apply Gaumont British 595.78

Life cycle from the laying of eggs to the final emergence of the butterfly from the pupal case

Cocoon to butterfly. (Conflict of nature ser.) 91/2min 16-sd-rent \$1.50 Bell & Howell

Macro-cinematography by Louis Tolhurst
"A close-up action study of the metamorphosis of the caterpillar to butterfly.
Details of feeding, drinking from dew
drops, spinning the cocoon, struggle to
emerge, and intimate views of the butterfly's anatomical structure, are shown with
the aid of a powerful microscope." Producer jh-sh-c

Comma butterfly. 15min 16-si-\$18.53 35-si-f-nf-apply Bray 595-78

"Shows all changes from egg to full grown butterfly." Missouri
Jh-sh-c

Life-history of the monarch butterfly. 10min 16-si-\$20 35-si-nf-\$40 1921 Soc. for visual educ.

or Visual educ.

"The larva is seen feeding on the milk-weed leaf and later spinning the silk pad from which the chrysalis is to hang. Shedding its skin, it passes into the pupa stage. Within the thin walls of the chrysalis case we see the faint outlines of the developing butterfly. Finally the chrysalis bursts, a moist, tightly-folded creature staggers forth, dries its wings, and flutters awayagorgeous Monarch butterfly." Producer el-jh-sh Guide

Moths. 10min 16-sd-\$50 35-sd-nf-\$100 1931

"A large silk moth and the white-masked tussock moth are followed in detail through their life histories. The silk moth caterpillar is shown at work on the construction of its unusual cocoon. The secluded life of the female tussock moth is revealed. All the steps in their life cycles are portrayed. Attention is called to their economic importance." Producer

Jh-sh Guide

Samia cecropia, the giant American silk-worm. 13min 16-si-\$24 35-si-nf-\$50 1920 Soc. for visual educ.

"Life-cycle of the moth. We see the eggs photographed through a microscope, as the tiny black caterpillars eat their way out through the shell. All four stages of the larva's development are shown. We see the caterpillar pulling leaves about it to conceal its movement, then fastening the guyropes and spinning the cocoon. The cocoon is cut open to show us the inner lining, and . . . close-ups enable us to watch the mature moth as it forces its way out of the cocoon." Producer el-jh-sh Guide

595.79 Bees

4R 35-si-nf-apply Soc. for Bee culture. visual educ. 595.79

The apiary, standard hive handling and care of bees, use of the smoker, gathering and marketing honey, distinguishing characteristics of queen and wintering bees sh Guide

Bees and spiders. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 595.79

By G. Clyde Fisher, of the American museum of natural history "Life history of the bee, the economic value of bees through honeymaking and pollinization, and the habits and appearance of the garden and trap door spider." Iowa univ. el-ih Guide

Bees—how they live and work. 1R 16-si-loan 35-si-nf-loan 1922 U.S. agric. 595.79

A Bureau of entomology and plant quar-

A Bureau of entomology and plant quarantine film
"How the bees gather nectar and transform it into a valuable food—honey; apiary and bottling methods are shown, as well as a queen laying eggs, bees hatching, bees gathering nectar, and other operations in the lives of these interesting insects." Texas

ney bee. (Ford educational library ser.) 1R 16-si-\$15 35-si-nf-\$40 Ford Honey bee. 595.79

"Brood cells, laying eggs, hatching, swarming, workers carrying honey and pollen, use of smoker, removing honey-comb, separating honey from comb." Missouri Guide

Realm of the honeybee. 4R 16-si-loan 35-si-nf-loan 1932 U.S. agric 595.79 595.79

Bureau of entomology and plant quarantine film

Life history of the honeybee, containing close-ups jh-sh-c

13min 16-si-\$24 35-si-nf-\$50 1921 Soc. for visual educ. 595.79

"A split-reel, tracing the life-history of mud-dauber and Polistes wasps. Shows the building of their houses, stocking them with food, and laying the eggs. Visualizes the hatching of the young and the development from grub to wasp." Producer Guide

595.796 Ants

s. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 595.796 Ants.

By G. Clyde Fisher of the American museum of natural history
"Interesting facts about ants. Shows eggs, larva, pupa; and adult ants at work." Illinois

el-jh Guide

Ants: nature's craftsmen. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce

Produced by Pathe

"Facinating micro-cinematographic study of ants and community life. It deals with a careful analysis of the structure of queens, males, and workers. Very instructive pictures of mounds and ant-hills; thousands of workers at work. The story of hatching; 'nurses' ministering to newly born ants; attacks upon enemles; feeding bables; defense of the home, etc.' Colorado

18min 16-si-\$21.10 35-Battle of the ants.

si-f-nf-apply Bray 595.796
"An army of ants invades a neighboring colony, captures it after a desperate struggle and annexes the new territory." Producer jh-sh-c

Battle of the centuries. (Battle for life ser.) 10min 16-sd-rent \$1.50 Bell & Howell

Shows, by microscopic photography, the complete life cycle of the common ant. Shows struggle for supremacy between the ant and termite armies jh-sh-c

Our ant gang. 1/4 R 16-si-\$6 Bell & Howell

By Louis Tolhurst

"Shows the energy which the Ant Gang displays in building its network of tunnels underground and the military marshaling of forces when a large obstacle obstructs the path; development of the ant from the egg through the larva and nymph stages." Colorado

597 Fishes

For fishing as an industry see 639. For fishing as a sport see 799.1

Crayfish-stickleback. 15min 16-si-\$24 35-sinf-\$60 1929? Films of commerce 597

Produced by Pathe

Produced by Pathe
"The Crayfish is an animal which is of
universal Interest in the study of zoology
and nature study in schools. This detailed
story of him in picture form describes his
structure, surroundings, habits, breeding...
The Stickleback is . . . the only fish that
builds a nest, somewhat similar to that of
a bird. This . . . shows the fish, its peculiarities, its nest with the eggs in it, the
male guarding it and the lively family of
little Sticklebacks." Distributor
sh

Day at the river. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

By G. Clyde Fisher, of the American museum of natural history
Life history of the trout and the salmon, nesting habits of the stickleback, and the appearance and habits of the crayfish el-jh Guide

Pacific coast salmon. 15min 16-si-\$24 1930 Eastman

"The life history of one of our chief sea foods is presented in a clear, concise manner, and the magnitude of the fishing industry is stressed. Salmon struggle against falls, rapids, and rough water, on the way upstream. Slow motion views show them jumping the falls. The salmon run. Artificial spawning. Salmon fishing. How salmon are cleaned, cut, canned, cooked, labeled, and shipped." Indiana

Guide Gulde

597.8 Toads. Frogs

Down at our pond. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 597.8 DeVry

By G. Clyde Fisher, of the American museum of natural history
"Life history of toads and frogs, and some of the more interesting characteristics of turtles and snakes. For older pupils, the development of the toad from the egg through the tadpole stage will provide a background for a study of the more important aspects of the mysteries of life." Iowa univ.

el-lh Gulde el-jh Gulde

Frog. 1R 16-si-apply Edited pictures 597.8

Development of the frog from egg to pollywog and the metamorphosis to the full-grown frog shown under the micro-

Frog. (Harvard univ. natural science ser.) 1931 10min 16-sd-\$50 35-sd-nf-\$100

"The frog, as the most representative amphibian, is here picturized. The entire life cycle of the frog is presented, aided by many stop-motion scenes and microscopic views. The development of the embryo is thus brought to the screen in a continuous scene of only a few seconds. The several changes taking place in the tadpole stage are . . portrayed by picture and narrative. Slow-motion photography demonstrates the graceful movements of the frog in jumping." Producer

Frogs, toads, and salamanders. 15min 16-si-\$24 1932 Eastman 597.8

si-\$24 1932 Eastman 597.8

"The frog, tree frog, green frog, eggs, tadpoles, formation of gills, white heron eating tadpoles, transformation from tadpole to frog. The toad, eggs, tadpoles, wart glands secrete protecting fluid, breathing movements, winking, feeding on earth worms, absorbing water through skin, burrowing with hind legs, hibernation. Salamander, young newt tadpole, gills, existence on land, return to water, the mud puppy, water dog, hellbender." Ohio jh-sh-c Guide

16-si-apply 35-si-nf-apply 14min 1921 Soc. for visual educ.

"The complete life-cycle of the common garden toad and the tree toad, or Pickering's hyla . . . Many . . . glimpses of tadpoles and mature toads." Producer jh-sh Gulde

598.1 Reptiles

Reptiles. 15min 16-si-\$24 1932 Eastman

Harmless garter snakes, pit vipers, and poisonous coral snakes; New World lizards—American "chameleon," horned "toad," iguana, and Gila monster; alligators—their habits, eggs and young; tortoises and turtles—box tortoise, desert tortoise, and marine turtles Guide

Tortoises. ¼R 16-si-\$9.50 Bell & Howell 598.1

By Raymond L. Ditmars of the Bronx zoological park "The American box tortoise, the Mada-gascar tortoise and the Galapagos, the largest species of the tortoise." Colorado

598.2 Birds

y on the rock. (Secrets of life ser.) 9min 16-sd-apply 35-sd-f-apply Gau-Baby on the rock. mont British

A study of the buzzard showing details of the nesting site, the nest, eggs and brooding hen, the precautions taken to hide the nest from enemies, the hatching of the eggs, care and feeding of nestlings, and the attempts of the fledglings to leave the nest. It shows also the grown birds in flight. Should be useful in nature study or biology classes

Guide Guide

Baby songbirds at mealtime. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of com-598.2 merce

Nature study dealing almost entirely with little songbirds and their eating habits. Many pictures of parent birds feeding their nestlings. Some of the birds shown are: sparrows, linnets, canarles, bullfinch, chaffinch, brown linnet, ittmice or chickadees, the long-tailed tomtit, European warbler and the marsh wren

Bird homes. 15min 16-si-\$24 1930 Eastman 598.2

"Shows the beach and marsh homes of the least tern, killdeer, stilt, gull, piedbilled grebe, —the meadow homes of the bobolink, spotted sandpiper, horned lark, meadow lark, and burrowing owl—the sky-scraper homes of cormorants, puffins, duck hawks, flickers, —and the homes of birds which build near the ground, such as the cuckoo, wood thrush, yellow warbler, redstart, and humming bird."

el-jh-sh Guide

Bird neighbors in summer. 10min 16-si-\$10.50 35-si-nf-\$53.22 Canadian gov't.

Bilingual titles

Bird protection, dealing with common varieties of birds that nest in close proximity to habitation in the summer months. How to protect them and how to make friends with them

"¡Useful in] biology and nature classes;" Am, museum of nat. Hist.
jh-sh [classes]"

Bird neighbors in winter. 5min 16-si-\$8.19 35-si-nf-apply Canadian gov't. 598.2

Titles in French and English

"An interesting film on bird protection, showing the chickadee, downy woodpecker, white-breasted nuthatch, and other common winter birds; showing how the bird lover may protect and make friends with them. [Useful in biology and nature study [classes]" Am. museum of nat. hist. Jh-sh

Birds of Bonaventure. (Seeing Canada ser.) 5min 16-si-\$6.51 35-si-nf-\$32.64 Canadian gov't.

"Glimpses of the famous Canadian bird sanctuary at Bonaventure Island in the Gulf of St. Lawrence and the various types of Canadian sea-fowl that nest in countless thousands on the cliffs of this picturesque home of birds." Producer jh-sh

Birds of prey. 15min 16-si-\$24 1931 East-

"Unusual eyes, beaks, feet, and feather structure, which assist birds of prey in food gathering, are featured. A goshawk in slow motion photography, a peregrine and young, a marsh hawk, rough-legged hawks, barn owls, a great horned owl, black vultures, and bald eagles are pictured." Producer

jh-sh Guide

Birds of prey. 15min 16-si-\$24 35-si-nf-\$60 Films of commerce

Produced by Pathe

"Showing the habits, habitat and characteristics of carnivorous birds of the Americas, Asia and Europe. The krestrel, hawk, sparrow hawk, buzzard, goshawk, the lammergeier of Asia, the Andean condor, the European vulture and the American eagle are among the birds shown in this picture." Distributor

Birds of the seacoast. 15min 16-si-\$24 598.2 1931 Eastman

Long wings and webbed feet of water birds are shown as well as their food pouches and bills which are especially adapted to their habits in procuring food. Shows young gulls hatching out, terns' eggs, black skimmers' nests and digging of hiding holes for the young. Colonies of murres, nesting grounds of cormorants and the brown pelican's bill pouch are also shown and the bralso shown

ih-sh Guide

Birds rare and fantastic. (Canadian sea fowl ser.) 10min 16-si-\$10.32 35-si-nf-598.2 apply Canadian gov't.

Titles in French and English

"Life and habits of the red-throated loon, the double-crested cormorant, and the common cormorant." Indiana

(Canadian sea fowl ser.) Fleet wings. 10min 16-si-\$10.14 35-si-nf-apply Cana-598.2 dian gov't.

Titles in French and English

"Dealing with the life and habits of the Herring Gull, the Ring-billed Gull and the Caspian Tern." Producer

Game birds. 15min 16-si-\$24 1931 East-598.2

"Waterfowl, mallard ducks, feeding, nesting habits, pin-tails 'dabbling,' female teal and nest, wild geese, swimming and nesting, goose feathering its nest, goslings, coots (mud hens), lobes on coots' feet. Grouse, 'fool hens' (Franklin grouse), ruffed grouse. Quail, a California quail taking dust bath, bob white and nest, young birds. Pheasants, the silver pheasant, ring-neck pheasant, wild turkeys." Ohio

el-jh-sh-c Guide

Home from the South. (Secrets of life ser.) 9min 16-sd-apply 35-sd-f-apply Gaumont British 598.2

Gaumont British

"One watches at close range the chiff-chaff.. the two kinds of whitethroat garden warbler, reed warbler, sedge warbler, willow warbler, wood warbler and their exquisitely made nests. One is reminded of the passing of the year by beautiful studies of many trees in blossom and caterpillars crawling along willow twigs. A young cuckoo ousting its foster mother's own small egg from the nest and later, when almost full grown, dependent for nourishment on the little warbler, affords a grotesque surprise for a few moments. A very enjoyable portrayal of bird life. The re-introduction of the eight birds in stills towards the end is particularly apt. [Useful inj nature study, biology, zoology, gardening and agriculture [classes]" British film inst.

Jh-sh-Guide jh-sh-Guide

Home of the birds. (Canadian sea fowl ser.) 8min 16-si-\$11.10 35-si-nf-apply Canadian gov't.

Bilingual titles

"Very similar to 'Birds of Bonaventure,' listed above; many of the scenes being the same. The home and breeding place of many of the Canadian sea-fowl." Colorado

Hummingbirds. 5min 16-si-\$6.91 35-si-f-nfapply Bray

By William L. and Irene Finley "The mother bird and her tiny eggs in the nest; fledglings not much larger than bumble bees, etc." Producer

In birdland. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 12min 598.2

By G. Clyde Fisher of the American museum of natural history
A collection of small native birds. Represented are the finches, sparrows, chickadees, nuthatches, linnets, wrens, kingfishers, humming birds and flickers. Simple bird house construction is also shown el-jh Guide

Mallard duck in Oregon. 5min 16-si-\$5.38 35-si-f-nf-apply Bray

By William L. Finley "How the wild mallard duck builds its nest and rears its family." Producer

35-National bird refuges. 1R 16-si-loan si-nf-loan 1922 U.S. agric.

A Bureau of biological survey film
"A trip on a government patrol boat
to federal bird refuges on islands in the
Gulf of Mexico, off the coast of Louisiana;
brown pelicans, royal terns, laughing gulls,
black skimmers, and other birds." Indiana el-jh-sh

Nature's gliders. 18min 16-si-\$20.83 35-sif-nf-apply Bray

"Analysis of the flight of birds by slow motion; seabirds taking off from the cliff; gliding; use of air currents by birds to propel themselves; gulls, gannets, wild swans, cranes and herons in full flight. Why domesticated birds lose their power of flight." Producer

Nimrods in duckland. (Seeing Canada ser.) 8min 16-si-\$10.68 35-si-nf-apply Canadian gov't.

"Provides a record of a day's duck shooting on the upper St. Lawrence." In-diana jh

Nomads of the ocean. (Canadian sea fowl ser.) 5min 16-si-\$8.25 35-si-nf-apply

Canadian gov't. 598.2

Bilingual titles

"A film showing Canadian sea fowl and dealing with the life and habits of the puffin, common murre, ringed murre, and razor-billed auk, and how they are protected under the Migratory Birds Convention Act." Indiana.

Nomads of the sea. (Seeing Canada ser.) 5min 16-si-\$8.25 35-si-nf-apply Canadian gov't.

"Taken along the northern shores of the Gulf of St. Lawrence—the home of countless thousands of little known Canadian sea-fowl. . Contains many . . . views of Gulls, Murres, Eider Ducks, Cormorants, and other rare birds nesting in their native haunts." Producer [Useful in] biology and nature study [classes]" Am. museum of nat. hist. el-jh-sh

el-jh-sh

Our animal friends and foes. 10min 16-si-\$10.80 35-si-f-nf-apply Bray 598.2 "Advocates preservation of bird life to counterbalance annual losses in crops de-stroyed by animal and insect pests." Producer el-jh

common birds. (Ford educational library ser.) 1R 16-si-\$15 35-si-nf-\$40 Our common birds. 598.2

A study of many of our most common birds, such as the blue jay, woodpecker, hawk, owl and shrike

Pirates of the sky. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

By G. Clyde Fisher, of the American museum of natural history Life and habits of some common water-fowl and birds of prey el-jh Guide

Plover. (Secrets of life ser.) 9min 16-sdapply 35-sd-f-apply Gaumont British

A study of the green plover showing details of the nesting site, the nest, eggs and brooding hen, the precautions taken to hide the nest from enemies, the hatching of the eggs, care and feeding of nestlings, and the attempts of the fiedglings to leave the nest. It shows also the grown birds in flight and the catching of insects which plovers eat. Should be useful in nature study or biology classes Guide

Roosevelt, friend of the birds. 15min 16-si-\$15 35-si-nf-\$65 1929 Roosevelt house 598.2

"The romance of bird life, and the tragedy of the wanton slaughter, before refuges were set aside by President Roosevelt's executive order in 1903. T. R. in the open at the refuge on Pelican Island off the coast of Louisiana." Producer

Ruffed grouse. 12min 16-si-\$18 1930 Eastman 598.2

"Tells of the life history of the ruffed grouse, and may be used to advantage in nature study classes to typify the habits and activities of a large group of our fowlike game birds. The courtship of the grouse. The nesting of the grouse. Development of the young. Activities of the young bird. Hand-reared grouse nesting in captivity."

Hand-reared grouse nesting Guide Gulde

Some friendly birds. 15min 16-si-\$24 1930 Eastman 598.2

Birds that have similar tastes and habits, martins, chickadees and nuthatches, the house wren, bluebirds, woodpeckers—building nests, feeding their young and the "Spring dance" of the flickers el-jh-sh-c Guide

Sparrow hawk. 16min 16-si-\$20.23 35-si-fnf-apply Bray 598.2

"Nest and eggs. Young at different ages. Mother and father birds. Feeding young." California

Wading birds. 12min 16-si-\$18 1931 East-598.2

"Beach and marsh birds, adapted to wading, are featured in this study. Included are rare views of the adults, nests, eggs, and precocial young. The film units are: Sandpipers, Snipes, Plovers, Stilts and Avocets, Phalaropes, Herons." Producer jh-sh-c Guide

We are seven. (Secrets of life ser.) 9min 16-sd-apply 35-sd-f-apply Gaumont British

"A delightful study of a single family which leaves one with a feeling of satisfaction and a determination to watch at least one garden nest consistently when spring returns. The views from inside the nesting box are particularly interesting and one is left wondering how the lighting was managed so well. Young children would be relieved to hear that the parents continued to feed all their young ones and not only the few which kept their balance on the branch. ¡Useful in nature study, biology and gardening ¡classes]" British film inst. el-jh-sh Guide

599 Mammals

Adventures of Peter. 12min 16-si-\$18 1931 Eastman

"Adapted to beginning classes in nature study. Stimulates interest in animals and their homes; their methods and means of protection, their relation to man's welfare. Peter, a fox terrier, goes on a camping trip with his master. They find a baby wildcat, common mole, ground squirrel, badger, armadillo, porcupine, hornet's nest, skunk kittens, owls, and black bears." Producer el Guide

Animals of the cat tribe. 8min 16-si-\$12 1933 Eastman 599

Includes the domestic cat and kittens; tiger and leopard kittens playing with children; lions and cubs. The differences in external appearance of these animals are pointed out but their close relation to the cat tribe is demonstrated by their behavior. el

Baby beavers. 8min 16-si-\$12 1930 East-

man

"May either be used alone, or as an addition to the film 'Beavers listed below,' "Wisconsin

Short reel with simple titles, for small children. Baby beavers swim with their mother and try to climb on her back. Those succeeding are taken for a ride. The babies comb their fur with their paws, play in the sunshine, and in the nearby stream. Some climb over a dam while the rest swim and dive with their mother el Guide

Bears. 5min 16-si-\$6 1933 Eastman 599 American black bears, European brown bears, Malay bears, and polar bears are portrayed in action el Guide

Beavers. 15min 16-si-\$24 1930 Eastman

Animated and actual photographs of beavers repairing a dam and then lunching on bark. Views of trees they have cut, a canal they have made and of branches stored for food. A beaver combs his hair. Shows a cross country hike, the "musk heap" which serves as a guide to traveling beavers and a beaver giving the danger warning. Pictures of homes and of the young and of the young jh-sh Guide

Beavers at home. 2R 16-si-loan 35-si-nf-loan 1934 U.S. agric. 599

A Bureau of biological survey film "Beavers at work repairing dams and felling trees; beaver houses; studies of baby beavers." Producer

Bre'r Rabbit and his pals. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce

Animals of the "rodent family"—rabbits, squirrels, prairie dogs, woodchucks, mice, jerboas and marmots with a close-up working skeleton of the jaws that distinguish this family. The story of hibernation

Cat animals. (Living natural history ser.) ½R 16-si-\$9.50 Bell & Howell 599

By Raymond L. Ditmars of the Bronx zoological park. Interesting film on the lion, tiger and leopard

Chumming with chipmunks. 14m \$15.72 35-si-f-nf-apply Bray 14min 16-si-599 Shows the characteristics of the little striped chipmunk. Made by William L. and Irene Finley

Cougar hunt. 1R 16-si-loan 35-si-nf-loan 1931 U.S. agric. 599

"Methods followed by Government hunters in predatory-animal control work, with special reference to the mountain lion." Producer jh-sh

Cougar, the killer. 3R 16-sd-\$40 Gutlohn 599

A Master art production. Narrator: Edwin C. Hill
Jay C. Bruce hunting cougar in the beautiful hills of California, assisted by his dogs. An exciting episode amid lovely scenery

creatures. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 599

By G. Clyde Fisher of the American museum of natural history "The appearance and habits of some rabbits and hares, squirrels, woodchucks or groundhogs, prairie dogs, otters and beavers." Texas el-jh Guide

Jungle giants. 11min 16-sd-rent \$1.50 1934 Bell & Howell 599

Giraffe, crocodile, hippo, lion and ele-phant at home el-jh-sh-c

Monkeys and apes. 8min 16-si-\$12 1933 Eastman

Habits of species from both the Old and New Worlds. South American monkeys feeding on fruits and climbing. Old World monkeys, although lacking the power to grasp with the tail, are seen to be completely at home in the trees. Among the apes shown are dog-faced baboons, mother and baby orang-utan, a young chimpanzee, and bables of the glant gorilla

Our four-footed helpers. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 599

The cow, buffalo, gnu, giraffe, deer and similar quadrupeds are shown in this group of the ruminant family

Raccoon. 8min 16-si-\$12 1930 Eastman 599

"Life of this inquisitive and friendly little fellow is shown 'at home"—as he fishes for crawfish in a stream, catches one,

washes and eats it—and as he plays in the trees before he starts for his home in a dead tree stump." Producer Guide

Seals and walruses. 5min 16-si-\$6 1933 Eastman 599

"Fur seals are seen at their native rookeries in Alaska. Close views reveal a herd swimming, walking on shore by means of their flippers, and guarding and mothering their young. Very large seals, called 'sea elephants,' are shown at play. Walruses, fat and clumsy, parade before the camera." Producer

Three jungle giants. 5min 16-si-\$6 1933 Eastman 599

"Close views of Indian and African ele-phants with their wrinkled skins, up-turned trunks and large, floppy ears . . . rhinoceros wallowing in muddy water, and a young hippopotamus walking beside a small child." Producer

Where the moose runs loose. 14min 16-si-\$16.55 35-si-f-nf-apply Bray 599 "Taken in the heart of New Brunswick. Some extraordinary action pictures of moose, both on land and in water. . Gives one an idea of the splendid big game pos-sibilities of this part of Canada. Of special interest to all lovers of the outdoor life and wild game." Texas

600 USEFUL ARTS

610 MEDICINE

Dan's decision. 30min 16-si-loan 35-si-nf-loan 1929 Am. osteopathic assn. 610

A vocational film showing how a high school student decides to become an osteopathic physician. His life at college is depicted and his successful establishment with a general office practice

Doctor. (Vocational guidance ser.) 12min 16-is-\$24 35-si-nf-\$80 prior 1927 DeVry 610

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university
"Training necessary to qualify; medical schools, clinics, hospitals, an actual operation; the general practitioner; the specialist; the value of a doctor's services to a community; financial and social rewards and disadvantages; nursing as a profession; dutles, training, qualifications necessary for success." Indiana

jh-sh Guide

611 Anatomy

Body framework. 15min 16-si-\$24 1931 Eastman

"Shows how the skeleton determines shape and size of the body and how it protects the vital organs. Demonstrates details of bone structure and composition changes during growth, mending a fractured bone; relation of sunlight and cod liver oil to bone development and joint action." Producer
el-lh-sh Guide el-jh-sh Gulde

si - silent; sd - sound; f - Inflammable; nf - safety; el - elementary; jh - junior high; sh - senior high; c - college

Muscles. 15min 16-si-\$24 1931 Eastman

"The structure and the use of muscles are strikingly presented by means of actual photography and animations. The film may be used, not only to teach the facts involved, but also to provide a fresh approach to the consideration of habits of exercise and posture. Structure and properties of muscles. Muscles in action." Indiana ei-jh-sh-c Guide

612 Physiology

1. (General science ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry **612**

"Amoeba, lowest form of life. Man, the highest. Diagram showing the heart, lungs, alimentary canal, stomach, nervous system, eye, ear, etc. How connected with brain." California el-jh Guide

612.1 Blood and circulatory system

Action of the human heart. 8min 16-si-\$7.11 35-si-f-nf-apply Bray 612.1

Shows actual dissection of the human heart, demonstrating in detail its construction. Animated diagrams. The action of the living heart is seen at normal rate and in a slow-motion picture sh

Blood. 12min 16-si-\$18 1929 Eastman 612.1

"Illustrates the separation of plasma from blood cells, protein and salts from plasma—staining cells—counting red blood corpuscles—how white blood cells reach the body tissue—clotting of blood." Producer jh-sh Guide

Circulation. 15min 16-si-\$24 1929 East-612.1

Tracing the human circulatory system, a comparison of the human heart with that of the frog, showing the cycle of pulmonary circulation by animations and photography jh-sh Guide

Circulatory control. 15min 16-si-\$24 1930 Eastman 612.1

"Illustrates the pressure of blood in the arteries—methods of measuring blood pressure—the structure and work of the veins—and nature's method of vaso-motor control." Producer

Heart and how it works. (Human body ser.) 1R 16-si-\$35 35-si-f-nf-apply Bray

"Representing actual dissections of the human heart, demonstrating in detail the construction of its chambers, partitions, valves, and cords. The action of the living heart is seen at the normal rate and in slow motion." Iowa state college

Microscopic view of blood circula 7min 16-si-\$20 35-si-nf-\$30 1930? of blood circulation. Scientific film

Produced by Charles F. Herm

Shows the course of blood and lymph thru the body, action of a living turtle heart, expansion and contraction of the arteries, the arterial, venous and capillary flow of the blood in the vascular system of a chick embryo by microscopic and stopmation photography motion photography jh-sh

Valves of the heart in action. ½R 16-si-\$15 35-si-f-nf-\$25-\$20 Am. heart assn.

Made by the firm of Carpenter-Goldman, specialists in photography of this character. Intended for medical students, medi-

ter. Intended for medical students, medical societies, etc.

"Shows the valvular action of the heart, as demonstrated by Johannes Gad, and the arrangement of the apparatus. Then the systolic and diastolic movements of the heart as it lies on the table are shown. Next, the interior is pictured in action—a rare photographic feat accomplished by a clever method of lighting the interior cavities through the windows. Animated diagrams explain and amplify the scenes of the heart valves as well as the flow of the blood and the action of the heart muscle." Producer

612.2 Respiration

Breathing. 15min 16-si-\$24 1929 Eastman

"Scenes and animations stress the importance of good lungs, and explain the action of the diaphragm, breathing, lung structure, and function." Indiana el-jh-sh Guide

Breathing. 12min 16-sd-apply 35-sd-f-apply Gaumont British

Moving diagrams give illustrations of various methods of recording inhalation and exhalation Guide

How we breathe. 10min 16-si-\$15.20 35-sif-nf-apply Bray

The formation of human lungs and how they function in purifying the blood is shown by animated drawings

612.3 Digestion

Digestion. 15min 16-si-\$24 1929 Eastman 612.3

"Covers the complete digestive tract—action of saliva upon food—swallowing—structure—digestion of food—structure and action of both intestines."

Producer el-jh-sh Guide

Physiology of mastication. 2R 16-si-rent \$1 35-si-nf-rent \$1 Am. dental assn.

"Study of jaw movements of various animals exhibiting types of mastication as an introduction to study of human beings. Animated skulls and cartoons are synchronized with mandibular movements of animals. The film shows that 'three point contact' and 'bilateral balanced occlusion' never occurs in lower animals during process of incising and chewing tough resistant food." Producer

A technical film for use of dental students, dental societies, etc.

612.6 Reproduction. See 613.9

612.76 Locomotion

From creeping to walking. 10m \$50 35-sd-nf-\$100 1934 Erpi 10min 16-sd-612.76

By Dr. Arnold Gesell, director, Yale clinic of child development
This film illustrating the correlation of abilities continues the study begun in "Posture and locomotion" listed below Guide

Posture and locomotion. 10min 16-sd-\$50 35-sd-nf-\$100 1934 Erpi 612.76

35-sd-nf-\$100 1934 Erpi 612.76

By Dr Arnold Gesell, director, Yale clinic of child development
"Deals with the steps by which the infant advances from a helpless state of immaturity in which he only kicks and wriggles with ineffectual movements to the stage where he is able to change position and posture at will by pivoting, creeping, standing, cruising, walking, and running. The film is a . . . study of these phases of the child's development from the age of 8 to 80 weeks. Thirteen age levels are portrayed in a consecutive biographic series." Producer
c Guide

612.78 Voice

Human voice. 12min 16-si-\$14.16 35-si-f-nfapply Bray 612.78

"Combination of X-Ray photography, ordinary photography, and animated drawings, to demonstrate the physiological functions of the nasal passage; windpipe, gulet, epiglottis, vocal cords, larynx, lips, and tongue in producing sound." Indiana

613 Hygiene

Analysis of exercises performed with a rhythmical swing. (Physical education ser.) 10min 16-sd-apply 35-sd-f-apply Gaumont British

"Class work and 'close-up' photography of individual boys and girls." Producer Guide

Cleanliness—keeping the hair clean. 8min 16-si-\$12 1931 Eastman 613 "A dog, a beaver, and a goose take care of their coats. The proper methods of shampooing and drying the hair are shown, as well as the care of brush and comb." Producer el-jh Guide

2R 16-si-loan 35-si-nf-Drinking health. 2R 16-si-loan 35-si-nf-loan 1928 Films of commerce 613

Also available for elementary grades in a 1R version (16-si-loan 35-si-nf-loan)

New York City's water supply and how is purified. Importance of water and amount to be consumed daily. Giving drinking water to football players, factory and office workers. Need for individual drinking cups and sanitary dish washing "(Useful in biology, general science, hygiene, nature study and domestic science (classes)" Am museum of nat. hist. jh-sh Guide

Feet. 15min 16-si-\$24 1931 Eastman 613 Prepared in cooperation with the Ameri-

Prepared in cooperation with the American posture league
Details of structure and arrangement of
the arches; best mechanical use of the
foot; effect of improper shoes. The relation of heels to posture, and the characteristics of fallen arches. How closely related good feet are to efficiency and to
the enjoyment of life
el-jh-sh Guide

General health habits. (Health and hygiene ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 613

By Benjamin C. Gruenberg, formerly of he American association for medical the progress

"Encourages the formation of habits conducive to health, points out the reasons for such a program, and indicates the value of fresh air, sunshine and cleanliness." Colorado el Guide

Good posture wins. od posture wins. 2R 16-si-loan 35-si-nf-loan 1931 U.S. agric. 613

An Extension service film

"Good posture as a factor in costume-review contests and the importance of good posture in 4-H girls' club work." Producer

Kid comes through. 30min 16-si-apply 35-si-f-nf-apply prior 1927 Nat. tuberculosis assn.

Produced by New York tuberculosis and health association
"A drama of child life in a big city, teaching the value of physical fitness, fresh air, wholesome food, cleanliness and good habits. Excellent for boys and has strong Boy Scout interest." N.Y. (State). Dept. of health

Knowing gnome. 1R 16-si-appl apply Soc. for visual educ. 1R 16-si-apply 35-si-nf-

"Primarily to impress upon children value of personal hygiene. One little gnome takes in hand two children, Betty and Bobby, and leads them to happiness by showing them how to take care of their health. Excellent." Texas

Physical education—boys. (Physical education ser.) 9½min 16-sd-apply 35-sdf-apply Gaumont British

"A twenty minute [physical education] lesson with boys average age 10 in a big city." Producer Guide

Physical education—carriage. (Physical education ser.) 11min 16-sd-apply 35sd-f-apply Gaumont British

"Shows the correct way of standing, sit-ting and walking." Producer Guide

education—children Physical aged (Physical training ser.) 13min 16-sd-apply 35-sd-f-apply Gaumont British 613

"Children 4 and 5: Development through Free Activity, Independent Action, Self Control, Lightness and Spring, Flexibility, Alertness and Response. Children 5 to 6: Introduction to Lesson—Children put down their mats, then run into playground to practise anything they like, for a very short time. Under the teacher's direction change to 'Aeroplanes.' Run to two lines, and from these race across playground, avoiding collisions. Run to fetch mats, then jump round them. Trunk Exercise—sit cross-legged on mats, try to touch the ground in front with head and stretch up again. Lying: kick legs freely in the air, Lower legs slowly with straight knees. Free play on mats. At signal, put mats away. Free skipping. Balance Exercise—from skipping, jump to crouch with finger support, change to toe standing with arms sideways and back to crouch. Brisk walk. Jump—Jumping the Fish (painted on the playground). Game—'Mrs. Bond and her ducks.' Alternative Game—Play with balls: I Bouncing, 2 Throwing high, 3 Throwing forward and aiming at target, 5 Kicking. A method of collecting small balls which avoids congestion. Ending of Lesson— "Children 4 and 5: Development through

Physical education—Children aged 4-6— Continued

fetch mats and go for a brisk walk. Run into school. . . Spontaneous and natural and the teacher directs and takes part in all the activities. . The children's own voices are heard in the game 'Frog in the sea can't catch me'. . The work seen does not suggest special coaching, and preparation, it gives a happy fresh impression, and whilst it is good, it is not too good, but of the quality than any keen teacher may expect from her class. . For Elementary, Secondary, Kindergarten and Nursery school teachers and . . parents of young children." British film inst.

Physical education—children aged 7. (Physical training ser.) 12min 16-sd-apply 35-sd-f-apply Gaumont British 613

Typical lessons in physical education for top class of children in an Infant school Guide

Physical education—girls. (Physical education ser.) 19min 16-sd-apply 35-sdf-apply Gaumont British

f-apply Gaumont British

"This film shows a typical lesson for girls of eleven . . . before lessons with portable gymnastic apparatus are taken . . It is comprehensive and the activities are repeated often enough for the viewer really to take them in. . The work shown is really interesting and useful, the film is produced in the most professional manner, there are no dead points, and the lighting is brilliant—skilful alternation of near views of sections of the class, and of general views is made. These planned effects contribute to the understanding of the lesson as a whole, without disturbing its continuity. In this film a beautiful picture of modern physical training school work has been made, and the good posture, control and vivacity shown by these girls will make an appeal to the general public as well as to teachers. . [A] classroom instruction film for physical training teachers and boys and girls in Elementary and Secondary schools; general interest film for all." British film inst.

Guide

Physical education—rural school. (Physical training ser.) 11min 16-sd-apply 35-sd-f-apply Gaumont British

"A twenty minute lesson on physical education taken with boys and girls of the middle group of a three teacher village school." Producer

Guide

Posture. 15min 16-si-\$24 1931 Eastman

Prepared in cooperation with the American posture league "Demonstrates the effect of posture upon the size of the chest, the position of the abdominal organs, and general personal appearance. Shows how good sitting and standing posture may be developed."

Kansas el-jh-sh Guide

Posture. (Health and hygiene ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 613

By Benjamin C. Gruenberg, formerly of the American association for medical progress

standing "Good feet, sitting feet, standing posture, corrective exercise." Pr Producer posture.

Guide

15min 16-si-loan 35-si-nf-loan Red-head. Cereal soaps

"The importance of proper care of the hair is emphasized. The film is well adapted to grade school pupils." Illinois el-jh Gulde

Skin. 15min 16-si-\$24 1930 Eastman 613 "The skin of the fish, crocodile, ostrich, elephant and bear; the human skin is seen through a magnifying glass; structure of the skin; growth of cells; secretion of sweat; structure of the hair and nails." Iowa state college

el-jh-sh Guide

Working for dear life. 15min 16-si-loan 35-si-nf-loan 1921 Metropolitan life

"Stresses in interesting story fashion the importance of having a thorough physi-cal examination made annually." Nat. safety council el-ih-sh-c

613.2 Food. Dietetics

Food. (Health and hygiene ser.) 16-si-\$24 35-si-nf-\$80 prior 1927 12min DeVry 613.2

By Benjamin C. Gruenberg, formerly of ne American association for medical prothe

gress

"Suggests proper food habits and practices generally conducive to health. As a background, some general information on the digestive system is furnished." Colorado el-jh Guide

Food and growth. 15min 16-si-\$24 1930 Eastman

Eastman

"A feeding experiment with white rats, actually carried on in a sixth-grade classroom, is used to demonstrate the food value of milk as compared with the values of coffee and of candy. Unit one shows the assembling of a rat cage, and the naming and weighing of three rats used in the demonstration, and the system of feeding. Unit two demonstrates the cleaning of the cages, the renewal of the foods and the protection of the rats against chilling. Unit three presents the comparative growth records of the three rats, over a period of four weeks. The feeding is then changed, and the three rats are compared with another rat from the same litter but fed with milk throughout the entire period." Iowa univ.

el-Jh-sh Guide

el-jh-sh Guide

Food makes a difference. 2R 16-si-loan 35-si-nf-loan 1930 U.S. agric.

A Bureau of home economics film

"Results of proper nutrition for children; how laboratory tests are conducted to determine the effects of various foods; de-velopment and growth of flesh and bone." Producer

Good foods—bread and cereals. 8min 16-si-\$12 1931 Eastman 613.2

"Feeding chickens bread and milk, feed-ing chickens grain, feeding horse and cows grain, making oatmeal, bread and cereal for breakfast, cereal and fruit for supper, instruction in mastication and table man-ners." Ohio

el Guide

Good foods-a drink of water. 8min 16-si-1931 Eastman 613.2

"A horse, a dog, cows, ducks, and a moose drinking. Children at school and play drink from 'bubblers' or paper cups, and learn to drink water before breakfast. Animated diagram indicates when glasses of water should appear in the day's schedule." Producer

el Guide

Good foods—fruits and vegetables. 8min 16-si-\$12 1930 Eastman 613.2

"Scenes show that vegetables and fruits are relished by different animals: rabbits, a hen, birds, and a saddle-horse. A boy eats green vegetables at dinner, and three girls have fruit as part of their school lunch. In closing scenes a number of fruits and vegetables appear in succession." Producer el Guide

Too many pounds. 1R 16-si-loan 35-si-nf-loan Metropolitan life 613.2

Shows how modern comforts have weakened our muscles. Offers a reducing diet and exercise under the doctor's direction. How to cut down food calories is also demonstrated. The dangers of unwise reduction are stressed

Jh

613.4 Cleanliness

Cleanliness-bathing. 8min 16-si-\$12 1931 Eastman

"Birds splash in their tub. Children demonstrate warm baths and cool showers. Scenes show an elephant bathing, a polar bear in its pool, a dog swimming, and, finally, children and adults bathing at a beach." Producer el-jh Guide

Cleanliness-clean clothes. 8min 16-si-\$12 Eastman

"Swans preen their feathers. A horse is groomed. A boy polishes his shoes, brushes his coat, takes a clean handker-chief, demonstrates proper use of a nap-kin. Girls are shown wearing aprons as they help in the home. Closing scenes indicate proper care of clothing when not in use." Producer

el-jh Gulde

Cleanliness—clean face and hands. 8min 16-si-\$12 1931 Eastman 613.4

"A white rat cleans its paws. Scenes show an approved method of washing the hands, and handwashing at school. A cat cleans her own face, and then her kittens'. A boy prepares himself for supper after outdoor play. A class is inspected for cleanliness." Producer el-jh Guide

613.9 Sex education. Social hygiene

Tho other numbers, such as 612.6, are sometimes used for this subject, in this catalog all material is included here. Films showing the reproduction processes in individual animals are classed with other material on those animals

Gift of life. 60min 16-si-\$108 35-si-nf-\$170 Am. social hygiene assn.

"Film of unusual scientific and educational excellence." N.Y. (State). Dept. of

health "Highly endorsed by the State Supervisor of Science of the State Department of Education, Austin, Texas." Texas

"Under guidance of a scientist, a boy makes field observations, collects specimens and sees through the microscope the processes of reproduction in lower forms of plant and animal life. Continuing to higher life forms, eggs are incubated and life and movement of the embryo shown at different periods. Animated diagrams make clear processes that cannot be photographed, and with logical sequence and easy transition the study progresses to mammals and human beings. In summary, with an apt comparison of embryos, the principles of reproduction are reviewed and shown to be the same in man as in other mammals." Producer

jh-sh Jh-sh

Reproduction in higher forms. (Science of life ser, no.3) 1R 16-si-\$35 35-si-fnf-apply Bray

"Reproduction in fish, reptiles, birds and man. Human female's reproductive system, illustrated by animated anatomical drawings; representation of ovulation, fertilization, development of embryo and its nourishment. Delicately yet straightforwardly handled, for school use." California fornia

"With a suitable lecture the film is very successfully shown to audiences of older boys and girls." Indiana

Reproduction in lower forms of life. (Science of life ser. no.2) 1R 16-si-\$35 35-si-f-nf-apply Bray 613.9

"How the one-celled plant or animal reproduces by dividing; sexual reproduction in pond-scum and hydra; budding in hydra; structure of a flower, pollinization by insects; origin of seed." California sh

Social hygiene for women. 30min 16-si-\$60 35-si-nf-\$95 1919 Am. social hygiene 613.9

assn. 613.9

"A film analogous to the film ...

"Venereal Diseases' Ilisted below], but adapted for women. Clearly, but with care and good taste thruout, it explains the anatomy and functions of organs, fertilization, cell division, development of the embryo (carried to the fully formed child), role of the placenta (dispelling the popular fallacy of 'maternal impressions'), and the essential facts regarding the venereal diseases. In dealing with the latter, only a minimum of clinical cases are shown. This picture is not to be considered self-explanatory, but should be used as illustrative material for lectures to women and older girls." Indiana sh-c

Venereal diseases. 45min 16-si-\$75 35-si-nf-\$115 1918 Am. social hygiene assn.

"In the production of this film for men, and the corresponding film 'Social Hygiene for Women' listed above; the thoro knowledge of physicians and the skill of artists expert in motion picture technique have been combined. Carefully prepared animated diagrams serve to make clear the anatomy of male and female reproductive organs and various physiological processes. This film for men deals with the pathology of gonorrhea, syphilis, and chancroid, showing photographs of actual cases arranged in the order generally followed by experienced lecturers. This is distinctly designed to illustrate lectures to older boys and men on sex hygiene and prevention of venereal diseases." Indiana sh-c

si - silent; sd - sound; f - inflammable; nf - safety; el - elementary; |h - |unior high; sh - senior high; c - college

614 Public health

(Health and hygiene Disease carriers. (Health and hygiene ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

By Benjamin C. Gruenberg, formerly of the American association for medical prog-

"Breeding places and life cycle of flies and mosquitoes. Methods of destroying. Dangers of rat pest. Contaminated wa-California el-jh Guide

How disease is spread. (Science of life ser. no.6) 1R 16-si-\$35 35-si-f-nf-apply

"A series of dramatic episodes showing how bacterial infection is transmitted thru carelessness in the ordinary contacts of life; spread of infections; necessity of careful habits, and the proper cleaning of food materials." Indiana el-jh-sh

How to prevent disease. (Science of life ser. no.7) 1R 16-si-\$35 35-si-f-nf-apply Bray

Photographs and animated drawings "Contamination of water supply thru ignorance and carelessness; reduction of death rate following preventive measures; pasteurization; quarantine; vaccination; antitoxin; Schick test; death rates from prevalent contagious diseases; venereal disease and the need of open, courageous discussion thereon." Indiana

Keeping out bad food. 1R 35-si-nf-loan 1923 U.S. agric. 614

A Food and drug administration film "Inspection of imported food under the Food and Drugs Act as a protection against fraudulent and unwholesome articles; inspection of tea under the Tea Act." Producer

Serving the community. (Citizenship ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

"Mary Willis has typhoid fever. Principal of school explains causes and tells of house-fly as common carrier. School plans campaign against fly. Mapping out town and breeding spots. Canvass locates places. Individual owners forced to clean places. Individua: places. California el-jh Guide

614.8 Safety

safe driving of automobiles, see

Artificial respiration. 1R 35-si-nf-rent \$2.50 Nat. safety council

Nat. Safety council

"The Schaefer prone pressure method and its application in cases of electric shock, drowning and carbon monoxide poisoning are clearly demonstrated in this film. The simple directions which are given should be of great value to garage men, public service employees, Boy Scouts and others in case of emergencies requiring this knowledge of first aid." N.Y. (State). Dept. of health el-jh-sh

Nat. safety council Ask 1923 614.8

"Deals with home and street safety and firearms. . . A small boy, his sister, their

parents, and another boy are shown among hazards of modern life in contrast with cave man days." Producer

bon monoxide, the unseen danger. 15min 16-si-loan 35-si-nf-loan prior Carbon Bur. of mines 614.8

Made in cooperation with the Hupp

made in Cooperation with the Hupp motor car corporation

"Shows how this deadly gas may be encountered in workshops, garages, and homes, and points out ways of preventing accumulation of the gas. Visualizes methods of reviving victims." Nat. safety

"(Useful in civics, biology, general science, chemistry and hygiene [classes]" Am. museum of nat. hist.

jh-sh

Every swimmer a life-saver. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ. 614.8

"Shows the most approved and latest methods of rescue and resuscitation, in-cluding first aid methods as practiced by Boy Scouts." Nat. safety council Guide

First aid—care of minor wounds. 16-si-\$6 1932 Eastman 5min

"Stresses the importance of immediate care for even the slightest wound. Demonstrates in detail the proper method of applying sterile dressings." Producer

Jh-sh Guide

First aid—carrying the injured. 5min 16-si-\$6 1932 Eastman 614.8

"Demonstrates the making and using of stretchers in emergencies, and the meth-ods of carrying linjured persons without stretchers." Producer Jh-sh Guide

First aid—control of bleeding. 12min 16-si-\$18 1932 Eastman 614.8

"Shows, with actual photography and animated diagrams, accepted methods of control of arterial and venous hemorrhage in various areas of the body." Producer Jh-sh Guide

st aid—life saving and resuscitation.
15min 16-si-\$24 1932 Eastman 614.8
"Demonstrations in water and (in slow motion photography) out of water, of various approaches and holds used in rescuing the endangered swimmer. Methods of resuscitation shown include use of the inhalator." Producer

The Guide Producer Jh-sh Gulde

International ice patrol. 1R 16-si-\$25 35-si-nf-\$75 Harvard 1R 16-si-\$25 44.8

"The film is interesting as an account of the hazardous and exciting service of the International Ice Patrol which is conducted by the United States Coast Guard and supported by the principal maritime nations." Massachusetts

Many views of glistening icebergs

Learn and live. 15min 16-si-loan 35-si-nfloan prior 1927 Bur. of mines 614.8

Daily occurrences in life of mine of-ficial and his family. Members of family attend a first-aid class of miners and are instructed in the four most important points of first-aid—artificial respiration, control of bleeding, treatment for shock, and application of sterile dressing for all wounds. The Schaefer method of artificial respiration is demonstrated, placing of im-provised tourniquet, applying sterile dress-

Learn and live—Continued
ings to cuts, and dressing of simple fracture of forearm. Rescue from drowning of mine official's daughter and saving of her life through artificial respiration
"(Useful in civics [classes]" Am. museum of nat. his.
sh

Oxygen breathing apparatus. 15min 35-si-nf-loan prior 1927 Bur. of mines 614.8 Made in cooperation with the Peabody

Made in Cooperation with the Feabody coal company "Shows details of operation of Paul, Gibbs, Fleuss-Davis, and McCaa apparatus, used in mine rescue work and in deadly atmospheres; separate parts of apparatus, which is a particular and company to the reducing a viscous bottle reducing a property is always and the reducing a property is a property in the reducing a property in the reducing a property is a property of the reducing a property in the reducing a property is a property of the reducing a property in the reducing a property in the reducing a property in the reducing a property of the reducing a property in the reducing a property of the reducing a property in the reducing a property in the reducing a property of the re tus, used in mine rescue work and in deadly atmospheres; separate parts of apparatus, including oxygen bottle, reducing valve that lowers pressure from 2,000 to 3 pounds, regenerator for removing carbon dioxide from exhaled air, saliva trap and release valve, and by-pass valve that permits wearer to obtain oxygen direct from oxygen bottle; charging oxygen bottle; charging regenerator with chemicals; sterilizing and cleaning mouthpiece and tubes; and assembling apparatus. Mine rescue crew wearing apparatus is seen exploring mine and testing mine atmosphere with flame safety lamps and carbon monoxide detectors; and canary bird used for detecting carbon monoxide is pictured overcome by gas, then treated and revived." Producer

Safety at sea. 15min 16-si-\$24 1929 East-

man

"Safeguarding navigation, the lighthouse, how the beacon works, the fog bell. lightships, buoys, whistling buoys, acetylene light buoys, flashing buoys, bell buoys. The coast guard, a sea patrol, iceberg warnings, the crow's nest, cadet training, life boat drill, the life line, coast guard stations. A rescue, distressed liner, broadcasting the SOS, use of rockets, putting on life belts, firing the life line, using the breeches buoy." Ohio el-jh-sh Guide

Street safety—for advanced grades. 15min 16-si-\$24 1933 Eastman 614.8

Made in cooperation with the National afety council and American automobile safety association

association

"Graphically sets forth the safety principles that should govern the outdoor activities of older children, and that apply to adults as well." Indiana

A half-reel subject prepared especially for primary grades is also available (8 min 16-si-\$12 1933 Eastman)

jh-sh Guide

614.84 Fire protection and prevention

For the physics of fire, see 536. For forest fires, see 634.92

Bad master. 11min 16-si-sd-loan 35-si-sd-f-nf-loan Aetna 614.84

"Produced to show some of the more common errors made in connection with the use of fire. This picture shows a typical American family committing some of the mistakes that are so often made and which result in the loss of thousands of live and the destruction of millions of lives and the destruction of millions of dollars worth of property by fire every year." Utah

"The film is of general interest." Il-nois Guide linois

Fire prevention. Eastman 15min 16-si-\$24 1930 614.84

"Fire resisting construction, riveters at "Fire resisting construction, riveters at work, pouring concrete, testing windows, use of asbestos. Electrical insulation, testing insulation, effect of faulty insulation, lightning rods, animation showing action of lightning rods, testing electric irons, animation of electric iron. Safe-guarding inflammable materials, disposing of hot ashes, disposing of burning matches, testing matches, spontaneous ignition, dangers of gasoline cleaning, the rubbish heap." Ohio

el-jh-sh-c Guide

Fire protection. 15min 16-si-\$24 1929 Eastman 614.84

"Contrasts old and modern equipment and methods of fighting fires. Explains the operation of extinguishers, the prin-ciple of cooling, blanketing or smothering fires, and a lesson in fire safety." Pro-ducer el-jh-sh Guide

Fire safety. 15min 16-si-\$24 1930 East-614.84 man

Annual losses from fire are shown to be great. Suggests ways of preventing fires and shows what to do in case of fire. School children are taught methods of fire prevention

el-jh-sh-c Guide

616 Pathology. Diseases

616.01 Bacteriology. See 589.95

616.2 Diseases of the respiratory system

Conquest of diphtheria. 15min 16-si-loan 35-si-nf-loan 1933 Metropolitan life 616.2

Produced by Carlisle Ellis. Revision of a film first produced 1924

"Skipper, aged four, and the youngest member of an average American family, has fallen ill. As there are many cases of diphtheria in town, Dr. Simmons is called in. He finds that Skipper has only raided the family ice-box. However, precautions are taken and Skipper is given his first injection for diphtheria immunization. Dr. Simmons tells Skipper's mother of the days when his grandfather practiced medicine. The film fades back to little Betty and Johnny Adams in 1860, showing how, because of the lack of preventive measures, Betty Adams lost her life from diphtheria. Dr. Simmons also tells the story of Von Behring's first antitoxin injection in 1891, which is portrayed in a Christmas scene. The next generation of Betty and Johnny Adams in 1900 are shown saved by antitoxin. The doctor then shows how simply we can prevent diphtheria by toxin-antitoxin or toxoid." Distributor el-jh

Diphtheria. 15min 16-si-\$24 1930 Eastman

"Diphtheritic throat is compared with a normal one—the complete preparation and use of antitoxin are demonstrated—methods of modern diphtheria control and of preventing the disease by the administration of toxin-antitoxin are shown." Producer el-jh-sh Guide

616.24 Tuberculosis

Consequences. 30min 16-si-apply 35-si-fnf-apply prior 1927 Nat. tuberculosis 616.24

"A popular picture on the early diagnosis of tuberculosis which teaches the lesson that 'early discovery hastens early recovery.' Suitable for any audience and very helpful in tuberculosis campaigns. Interesting, clear-cut story with a happy termination." N. Y. (State). Dept. of health "For lay audiences." Producer

Tuberculosis and how it may be avoided. 15min 16-si-\$24 35-si-nf-\$75 1930 East-

"By scenes and animations, tubercle bacilli are shown growing in the laboratory and in the lung tissue of the human body. A tuberculin test is given, a positive re-action is obtained, and the daily routine at a preventorium is pictured." Producer el-jh-sh-c Guide

617.6 Dentistry. Care of the teeth

15min 16-si-apply 35-Bobby's bad molar. McCrum si-nf-apply

si-nf-apply McCrum

"Synopsis: Bobby has neglected his teeth and is paying the penalty by doing poor work in school, being backward in athletics, etc. One day his teacher sends him to the school dental hygienist, who examines his teeth. The hygienist explains Bobby's teeth troubles to him and urges him to go to the dentist at once and receive attention. Bobby takes her advice and finally becomes an enthusiastic advocate of the proper care of teeth." Am. dental assn. "This is very interesting for younger boys and girls, as the leading characters are two school children. The film presents the facts of Dental Hygiene in a very simple but convincing manner." Iowa univ. ei

Care of the teeth. 15min 16-si-\$24 1930 Eastman 617.5

Hastman

Made with the co-operation of the American dental association and the Rochester dental dispensary

Second in the series of films about teeth and may be used with or without the first, "How teeth grow" listed below

"Close-up of set of beautiful teeth, girl eating proper diet for good teeth, animation of parts of teeth, benefit of chewing for good teeth, effects of stain on teeth, removing stain, removing tartar, how to brush teeth, starting points of decay, filling a cavity, effect of abscess, cause of narrow dental arches, fever teeth, straightening teeth, dental floss."

Ohlo el-Jh-sh Guide

Clara cleans her teeth. 15min 16-si-apply 35-si-nf-apply McCrum 617.6

"Clara, aged 10, always neglected her teeth until she learned, through her playmates, the importance of daily brushing and care." Am. dental assn. "Popular film on the care of the teeth. Especially suitable for children." N.Y. (State). Dept. of health "Holds interest thruout and teaches a lesson forcefully." Indiana

How teeth grow. 15min 16-si-\$24 1930 Eastman

"Traces the development of teeth from infancy to adult life, showing their struc-ture and arrangement. Animated draw-ings and models show the position of the

teeth in the mouth. Labels indicate the structure of a tooth and the nerves and blood vessels which surround it. Diagrams of development at successive ages show how teeth are formed and break through the gums in definite order. Actual photography of children is introduced to show the teeth in position at each age level. A complete temporary set of a six year old child is shown, and animations demonstrate how this temporary set is pushed out by the insistent permanent teeth." Producer

"Recommended for the teaching of hygiene, and is designed to build up an understanding of the reasons for approved practices in the care of the teeth." Iowa univ. el-jh-sh Guide

Teeth. (Health and hygiene ser.) 12min 16si-\$24 35-si-nf-\$80 prior 1927 DeVry 617.6

By Benjamin C. Gruenberg, formerly of the American association of medical prog-

"To inform the pupils on the growth, structure and methods of caring for the teeth; the diseases which are liable to occur and their relation to general health; and to encourage the formation of correct habits regarding the care of teeth." Iowa univ.

Tommy Tucker's tooth. 15min 16-si-apply 35-si-nf-apply McCrum

"Tommy gets a 'job' but Jimmy Jones finds that it is necessary to be cleaned up before he will have success. The proper method of cleaning the teeth is shown." nethod of Cleaning Iowa state college

X-ray on teeth. 5min 16-si-\$7.50 35-si-fnf-apply Bray 617.6

"X-Ray photographs of infected tooth sockets and other curable diseases of the mouth; their destructive effect upon the health; importance of care and frequent examination." Producer

617.7 Care of the eyes

(Health and hygiene ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1924 DeVry 617.7

By Benjamin C. Gruenberg, formerly of ne American association of medical the

"Analysis of the structure and operation of the eye, illustrated by comparison with the camera. The action of light rays through various lenses shows the possibility of correcting near and far sight, astigmatism, and other defects. Shows blind children reading and writing." Texas el-jh Guide

How you see. 8min 16-si-\$8.80 35-si-f-nfapply Bray

The theory of sight explained by animated diagrams and photography; principles common to the eye and to the combination of lens, diaphragm and sensitive plate of the camera

How's your eyesight? 8min 16-si-\$11.79 35-si-f-nf-apply Bray 617.7

"Explains common ailments of the human eye, the causes, and remedies. Combines animated diagrams with actual photography." Producer

Preventing blindness and saving sight. 20min 16-si-loan 35-si-nf-loan 1930 1930 Nat. soc. for the prevention of blindness

"Shows the causes of blindness, and the simple precautions which, if observed, will preserve the vision of many people." Kansas

"Excellent film for advanced health classes, school nurses, community welfare organizations, etc. It is a fine treatise on the various causes of blindness." Wisconsin

617.8 Care of the ears

6min 16-si-\$8.82 35-si-f-nf-How we hear. apply Bray

"A study of the structure and functions of the human ear, shown by animated diagrams and photography." Texas

Out of the silence. 1R 16-sd-apply 35-sdf-nf-loan Western electric 617.8

A presentation with dialog and musical setting of the problem confronted by the hard-of-hearing. Story starts with Beethoven composing his Ninth Symphony and then changes to show how school children suffering from impaired hearing may be helped by ear aids developed by Bell telephone laboratories engineers

619 Veterinary medicine

Clean herds—and hearts. 3R 16-si-loan 35-si-nf-loan 1924 U.S. agric. 619

A Bureau of animal industry film

"The story of a community campaign for the eradication of animal tuberculosis; relation of animal tuberculosis to human health; economic losses due to the disease; opposition to the campaign from various sources, and how it was overcome; how the campaign is organized, with cooperation from farmers and city organizations. Altho this film was made some time ago, it tells a splendid story of bovine tuberculosis and its relation to human beings." Iowa state college

620 Engineering

Engineer. (Vocational guidance ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 620

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university
"Uses the civil engineer as a type. It shows the school training necessary as well as the various steps in after life thru which one must pass to qualify as chief engineer; the construction of the Brooklyn Bridge and the East River tunnel from preliminary plans to the completed structure." Indiana

[h-sh_Guida] jh-sh Guide

621 MECHANICS AND MACHINERY

1929 Simple machines. 15min 16-si-\$24 621 Eastman

"Built up, step by step, from the com-mon lever to combinations of all six simple machines, this film will promote an under-standing of the operating principles of all complex machines." Wisconsin jh-sh-c Guide

Skilled mechanic. (Vocational guidance ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 621

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university
"The skilled mechanic at work and the conditions under which he labors, the social value of group work, the necessity for skill and speed which comes only after a long period of experience, the necessity for a knowledge of related matters, such as blue-print reading, proper selection of material, different methods of construction, etc., the diversity of skilled crafts in this group." Texas

jh-sh Guide

jh-sh Guide

Story of power. 45min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 621

Made in cooperation with Stone and Webster engineering corporation from whom it may be secured in a 2R version under the title "Power" (16-si-loan 35-si-

under the title rowe.

nf-loan)

"Pictures early development of steam engines and Stephenson's locomotive, "The Rocket," and demonstrates modern uses of electricity. Scenes, maps and animated diagrams illustrate production of electrical power by steam and water and its transmission over the country." Utah el-jh-sh-c

621.1 Steam engineering

Modern trend in turbine design. 2R 16-sdloan 35-sd-f-nf-loan General electric

"Describes various factors and influences entering into and affecting the design of modern steam turbines." Producer jh-sh

Steam power. 15min 16-si-\$24 1930 Eastman

"The evolution of the steam engine is shown, from the Newcomen atmospheric pressure type to the simple slide valve type. A pageant of nineteenth century locomotives concludes with an analysis of a modern locomotive." Wisconsin jh-sh Guide

Turbine with the solid rotor. 25min 35-si-nf-loan Westinghouse 621.1

"Showing by animation and actual scenes all the stages of manufacture of the steam turbine. . . Taken at the . . South Philadelphia Works of the Westinghouse Electric & Manufacturing Company." Producer

621.3 Electricity. Applications

It is difficult to draw the line between It is difficult to draw the line between 621.3, applications of electricity and 537, the theory. Many books take up both. In many schools, the satisfactory arrangement would be to combine these classes; and in most cases 537 would probably be the most satisfactory number. If subdivision is desired, 537.8 is number for applications. In this list, both 537 and 621.3 are used, to agree with the Decimal classification and with the practice in many libraries with the practice in many libraries

Big deeds.
General electric 2R 16-si-loan 35-si-f-nf-loan

"Through General Electric Company factory at Schenectady, N. Y. Huge hammer pounding 12,000-pound billet into shape. Immense electric ovens. Research laboratorles. 900,000 volt Coolidge cathode tube.

Big deeds—Continued

X-ray. Broadcasting first television drama. Testing effects of lightning and other electrical experiments." California sh-trade

Heat and light from electricity. 15min 16-si-\$24 1930 Eastman 621.3

si-\$24 1930 Eastman 021.3

"This film, together with 'Water Power,' [class 621.312] 'Chemical Effects of Electricity,' [class 621.35] 'Magnetic Effects of Electricity,' [class 538] and 'Induced Currents,' [class 621.31] helps to impart a working knowledge of the principles of electricity.'' Wisconsin "Clearly explains series and parallel circuits—Ohm's Law—manufacture and use of conductors, insulators, and lamps—arc furnaces and heating equipment." Producer Jh-sh-c Guide

621.31 Generation of electricity

Gen-Busybody. 16-si-loan 35-si-f-nf-loan eral electric 621.31

"Departs from a conventional presenta-tion by animating the 175 parts which are comprised in the smallest motor. After this little machine has built itself on the screen, a number of its practical applica-tions are illustrated." Colorado

Induced currents. 15min 16-si-\$24 1930 621.31 Eastman

"Through the combination of photography and graphic animation, this film helps materially in teaching the difficult topics of armatures, commutators, collector rings, telephones, and mutual and self-induction." Wisconsin

Power transformers. 2R 16-si-loan 35-sif-nf-loan General electric 621.31

"Thirty-five years of engineering and manufacturing in the building of transformers pass in review in this picture, which contrasts the earliest transformer, weighing 20 pounds, with the latest, which weighs 100 tons." Kansas

621.312 Central stations

nowingo. 3R 16-si-loan 35-si-nf-loan prior 1927 Stone & Webster **621.312**

prior 1927 Stone & Webster 621.312

"The Conowingo hydroelectric development . . . located on the Susquehanna River . . . Acres of river bed made dry, steam shovels working many feet below the bed of the river, concrete being placed to build the power house and dam, a milelong steel bridge blown up with dynamite, great pieces of machinery weighing hundreds of tons lowered into position . . . While the work is in full swing a great flood sweeps down the river and the fight to keep the rushing waters back adds interest to the drama." Producer sh-c sh-c

Electric power in the southern Appala-chians. 15min 16-si-\$24 1929 Eastman

"Characteristic progress in industry and the changes in living conditions, resulting from the development of hydro-electric power in any vicinity, are exemplified in this film." Wisconsin Guide

Energy and work. (General science ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

By Morris Meister, head of science de-partment, Haaren high school, New York

city
A composite picture of an electric power plant. Transformation of power from sun to coal is traced and also from coal to heat, heat to steam, steam to electricity and the electric current until expressed, thru resistance, in incandescence. Also pictures a hydroelectric plant. The principles of action and reaction are illustrated by the engine in the steam plant which is of the turbine type

Jh-sh Guide

From coal to electricity. 21 35-si-nf-loan prior 1927 2R 16-si-loan Stone & Webster 621.312

"How in a power plant the energy of the sun, locked up in coal, is changed to electrical energy . . Shows the succession of steps by which coal becomes heat, heat generates steam, steam causes machines to move, and the machines produce electricity . . Employs the arts of the screen to take the observer not merely through the station but inside each machine and piece of apparatus to view what happens there." Producer

Ih-sh-c jh-sh-c

Hydroelectric power. 1R 16-si-loan 35-si-f-nf-loan General electric 621.312

"Shows the world's largest automatically controlled hydroelectric generating station, located on the Ohio River at Louisville, Ky." Producer

ure's frozen credits. 3R 16-si-loan 35-si-nf-loan prior 1927 Stone & Web-Nature's frozen credits.

"Filmed in . . . the Sierra Nevada Mountains . . The construction of a great hydroelectric plant on the turbulent Feather River, famed for its scenic beauty. The picture illustrates in a non-technical way the various steps of developing the project, from the initial surveys to placing the machinery in operation." Producer

ter power. 30min 35-si-nf-loan 1927 Bur. of mines Water prior 621.312

Made in cooperation with the Westinghouse electric & manufacturing company "Shows ancient methods of utilizing energy of falling water. Animated drawings picture power of Niagara changed into electrical energy. Shows uses of electricity in industry and in homes and generation of electricity from melting snow in mountains, brooks, and streams." Producer ducer

Water power. 15min 16-si-\$24 1928 Eastman 621.312

"Niagara Falls reveals energy of falling water, a Pelton wheel, low head water power installations, animations explain turbine, various uses of electricity." Ohio Jh-sh-c Guide

621.32 Electric lighting

Illumination. 15min 16-si-\$24 1931 Eastman 621.32

"Shows some of the principal methods of lighting, illustrates measurement of illumination by the use of the photometer and

Illumination—Continued

foot-candle meter, shows the cause and correction of glare in home and factory, and demonstrates the character of direct and indirect lighting." Weaver

Jh-sh Guide

Mazda lamp manufacturing. 30min 16-si-loan 35-si-nf-loan 1929 General elec-621.32

A silent version of "Mazda lamps pre-ferred" listed below "Making glass, blowing bulbs, frosting, making filaments, assembling, exhausting air." California "Historical meludor susceptibles"

air." California
"Historical prelude; successive processes
in the manufacture of these lamps with
emphasis on the advantages of standardization and mass production." Colorado

Mazda lamps preferred. 40min 16-sd-loan 35-sd-nf-loan 1929 General electric 621.32

"The development and manufacture of household-size General Electric Mazda Lamps. The first part, picturing Thomas A. Edison's early experiments with the incandescent lamp, was made in the Menlo Park Restoration at Dearborn, Michigan. The scene then shifts to Cleveland, where a trip through the lamp factory shows many of the marvels of modern Mazda lamp production." Producer

621.35 Storage batteries

Chemical effects of electricity. 15min 16-621.35 si-\$24 1930 Eastman

"Volta working in his laboratory. Electric batteries, making dry cells, making storage batteries. Electrolosis, Hoffman apparatus, animation of electrolosis. Electroplating, plating a radiator, electrotyping. Metallurgy, making copper anodes, producing pure copper, producing aluminum from bauxite by electrolosis." Ohio jh-sh-c Guide

Story of a storage battery. 30min 16-siloan 35-si-nf-loan prior 1927 Bur. of mines 621.35

Made in cooperation with the Willard storage battery company
"Reel 1 shows the historical development of the storage battery, and the various steps in its manufacture. Reel 2 shows the various ways in which the battery is tested, sealed, and packed. Animated drawings visualize action in battery during charging and discharging." Illinois "¡Useful in] chemistry, physics and general science [classes]' Am. museum of nat. hist.

sh

621.38 Electric communication. Radio

sh

nmunication. (General science ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 Communication. DeVry

By Morris Meister, head of science department, Haaren high school, New York

partment, maaren man secondary city
"The principle of an electric bell; the telegraph and the cable; voice waves; principle of the telephone, the radio, and the radiophone. Each step is clearly explained by animated diagrams and photographs of the various instruments in operation in everyday life." Indiana el-jh-sh Guide

Electrical transmission of speech. 1R 16si-apply 35-si-f-nf-loan Western elec-

"Graphic presentation in animated drawings of the interesting fundamentals involved in the transmission and reception of the voice over wire circuits." Producer

bum. 1R 16-sd-apply 35-sd-f-nf-Western electric 621.38 Family album. loan

"A reunion of the telephone family is humorously pletured in this animated sound cartoon. Old Father Tel E. Phone introduces his sons, Mike and Loud Speaker, Public Address, Electrical Stethoscope and Talkie, the young motion picture wizard. The first actual recording on a sound film of the human heart-beat is heard." Producer

Laying the world's fastest ocean cable off Newfoundland. 2R 16-si-apply 35-si-fnf-loan Western electric

"The laying of the permalloy cable from Bay Roberts, Newfoundland, to Penzance, England, with brief history of the laying of cables." Texas

Sky harbor. 1R 16-sd-apply 35-sd-f-nf-loan Western electric

"Synchronized to a descriptive narrative with full orchestral and sound effects." Producer
"The operation of the radio telephone

"The operation of the radio telephone communication system is shown and explained by a combination of actual photography and animated drawings. Airports and ships of the air provide the settings." Texas

Speeding up our deep sea cables. 2R 16-si-apply 35-si-f-nf-loan Western electric 621.38

Record of the laying of the permalloy cable between New York and the Azores

Wizardry of wireless. 2R 16-si-loan 35-si-f-nf-loan General electric 621.38 621.38

"A review of the history of signal communication, including the beacon fire, smoke signal, heliograph, semaphore, electric telegraph, telephone, and radio. Animated drawings are used to explain the operation of vacuum tube and other apparatus used in radio transmission and reception." Producer

621.385 Telephone

Inside story of your telephone. 2R 16-si-apply 35-si-f-nf-loan Western electric 621,385

How copper, mica, cotton, silk, gold, silver, platinum, rubber, flax, nickel, iron, coal, aluminum, asphalt, and wool are obtained and made ready for their use in your telephone. An older film which is your telephone. still useful

Magic of communication. 1R 16-si-apply ,35-si-f-nf-loan Western electric 621.385

"An animated explanation of what goes on in the transmitter and receiver of your telephone when the sound waves dash against the diaphragm and the little granules of carbon (coal) are pressed together." Texas

New voice highways. 1R 16-sd-apply 35sd-f-nf-loan Western electric 621.385
"Music and sound effects enhance the popular appeal." Young men's Christian New voice highways—Continued

"How telephone cable is made and used.
Contrasts are drawn between the old
method of stringing city telephone wires
on poles and the modern manner in which
the huge lead-covered speech-carriers are
now run underground." Texas

621.4 Gas and oil engines. Solar engines

Energy from sunlight. 15min 16-si-\$24 1930 Eastman 621.4

"Explains the principle of a solar engine — pictures the energy of falling water, sunlight, and wind power — shows how energy from sunlight stimulates plant growth, and is stored for future use in the form of wood and coal." Producer

jh-sh Guide

Four-stroke cycle gas engine. 15min 16-si-\$24 1929 Eastman 621.4

"Animated drawings show the four strokes of each cycle; intake, compression, power, and exhaust; the fuel system of a gas engine is traced; the principle of the spark coil is illustrated and the air-cooled system is compared with circulatory water-cooling." Weaver "Animated drawings show the four

jh-sh-c Guide

Power within-construction, operation, and care of the internal-combustion engine. 45min 16-si-loan 35-si-nf-loan prior Bur. of mines 621.4

"Uses of power produced by internal combustion engine in lighting homes, pumping water, plowing fields, and operating automobiles, boats, and airplanes. Explains in detail by animated drawings name, location, and operation of each part of motor. Reel 2 presents principal features of automobile engine by animated drawings, with rod or arrows pointing to each part as it appears; shows how firing takes place in cylinders; illustrates changing of gears; explains how power is transmitted by propeller shaft to differential and takes place in cylinders; illustrates changing of gears; explains how power is transmitted by propeller shaft to differential and axle shaft to rear wheels; and gives views of burned-out bearings, scored cylinder walls, and worn gears due to improper lubrication, telling how this difficulty may be avoided. Reel 3 shows purpose of carburetor (atomizing and mixing fuel with air before it enters cylinder); improper firing and waste of gasoline due to fouled spark plugs; knocking caused by accumulation of carbon; and proper use of choke. Waste of gasoline and of power is shown by animated drawings." Producer

Story of the gasoline motor. 45min 16-si-loan 35-si-nf-loan prior 1927 Bur. of 621.4 mines

Made in cooperation with the Continental motors corporation

motors corporation

"Reel 1 depicts by animated drawings action of gasoline in cylinder and of each working part; casting and machining of each cylinder block; and tests for accuracy. Reel 2 shows machining of crank case; forging and machining of crank shaft; machining of pistons and connecting rods; testing of these parts; and their operation in motor. Reel 3 illustrates working of inlet and exhaust valves; timing of action; making of cam shaft, inlet, and exhaust manifold; distribution of lubricating oil to motor; and final test for smooth running." Producer

ih-sh-c

621.5 Pneumatic machinery. Refrigera-

Compressed air. 15min 16-si-\$24 1928 621.5 Eastman

"The principles underlying the compression of air, and its practical applications to the Bessemer converter, railway air brakes, air driven tools, and the fire engine." Producer

Jh-sh-c Guide

Refrigeration. 15min 16-si-\$24 1929 East-

"Natural ice, cutting ice, packing ice. Commercial refrigeration, making solid carbon dioxide, making artificial ice explained by scenes and animations, refrigerator cars. Household refrigeration, ice refrigerator, electric refrigerators and gas refrigerators explained by animation." Ohio

jh-sh-c Guide

621.8 Principles of mechanism

Valves, their manufacture and uses. 45min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the Crane com-

Made in cooperation with pany "Close-up views and cross sections of angle, globe, gate, and check valves. Complete story of the manufacture of brass valves. Shows the making of iron and steel valves, including forging poppet, butterfly, check, and gate valves; 27 foot butterfly valve, the largest made." Illinois "(Useful in physics and general science [classes]" Am. museum of nat. hist.

621.87 Elevators

Riding skyward. 32min 16-si-loan 1936 Otis

A comprehensive history of the development of the Otis elevators. Incidentally there is shown a history of transportation

621.9 Machine tools

Engine lathe and its operation. 7R 16-si-apply 35-si-nf-apply Soc. for visual educ.

educ. 621.9

"Its care and operation—the complete assembly of lathe, showing principal parts—preparing the lathe for operation (oiling the different parts, starting, stopping, reversing; countershaft operation; straight and cross belts, object of reverse, etc.)—machining a shaft on centers—care of the spindle—diagram of 12 of the most practical lathe tools—thread cutting—machining a pulley—machining a pair of lathe centers—full details of important lathe jobs, together with knurling the lathe, turning taper by setting over tailstock, and special manufacturing job on a lathe." Producer Producer

trade Guide

Industrious diamonds. 1R 16-si-apply 35si-f-nf-loan Western electric 621.9

"Diamonds are used in dies which, in turn, are used in making copper wire. This film shows how diamonds are cut and mounted for use in this industry." Texas

Jewels of industry. 30min 16-si-loan 35-si-nf-loan 1932 Rothacker 621.9

Sponsored by the Carborundum company "From the beautiful scenery of Niagara Falls into the manufacturing plants to show how abrasives are made, then into the many industrial plants to show their the many incuses." Utah

Manufactured abrasives. 45min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 621.9

Made in cooperation with the Carborundum company
"Shows experiment which led to discovery of carborundum; views of Niagara Falls, the source of power used in the manufacture of this abrasive; manufacturing processes; and some of the many uses of this product in factories, shops, farm, and home." Colorado

sh-c-trade

622 MINING, ENGINEERING

Safety in the use of explosives in open-pit iron mining. 1R 16-si-loan 35-si-nf-Hercules 622

"The great open pit iron mines of Minnesota are shown with their every safeguard." Colorado

622.2 Quarrying

Modern quarry blasting. 1R 16-si-loan 35-si-nf-loan Hercules 622.2 622.2

"The Hercules Powder Company recently published a text book entitled 'Modern Blasting in Quarries and Open Pits,' which thoroughly covers all phases of quarry blasting. To supplement this book, this one-reel film has been produced to picture the results obtained by various methods of blasting under a variety of conditions." Producer

"Quarry blasting of all kinds is shown, demonstrating that explosive engineers can select the particular type of method which will give the desired result." Colorado

A slow-motion picture of a large tunnel blast presents an opportunity to study an explosive action in its entirety

622.33 Coal mining

Anthracite coal. 15min 16-si-\$24 1929 Eastman 622.33

"Stresses the necessity of adequate timbering—shows miners at work, blasting coal and removing it from the mine—work in the honor production and coal." in the breaker—cleaning and grading coal. Producer el-jh-sh-c Guide

Anthracite coal. hracite coal. 1R 16-si-loan 35-si-f-nf-loan 1928 General electric 622.33

"This film depicts how anthracite was secured from one of the first mines, opened more than a century ago. Also, the principal operations in the mining and preparation of this important natural resource by our modern methods. [Useful in] geography, physiography, commercial geography and general science [classes]" Am, museum of nat. hist.

el-jh-sh

Bituminous. 1R 16-si-loan 35-si-f-nf-loan General electric 622.33

"Shows the mining of bituminous coal, with special reference to the development of various methods of mining according to the location and the type of mine." Producer "Useful

"¡Useful in] geography, physiography, commercial geography and general science [classes]" Am. museum of nat. hist.

el-jh-sh

Bituminous coal. 15min 16-si-\$24 1928 Fastman 622.33

"Shows mining of soft coal—testing for gas, blasting, purifying air, slate picking, sorting. Also manufacture of coke—crushing, floating off slate, beehive and retort ovens, quenching and loading." Producer el-jh-sh-c Guide

Buried sunshine. 2R 16-si-loan 35-si-nfloan Stone & Webster 622.33

"Story of Anthracite how it was story of Anthracite . . . how it was discovered, how it is mined and how today it is cleaned, sorted, graded, and made ready for shipment by the largest anthracite breaker in the world." Producer

jh-sh-c

Modern coal mining. 25min 16-si-loan 35-si-nf-loan 1930? Goodyear 622.33 "How labor-saving electrical machinery has replaced old methods." Colorado

1" a 100 percent mechanized 45min 16-si-loan 35-si-nf-loan "Wildwood" mine. prior 1927 Bur. of mines 622.33

Made in cooperation with the Westinghouse electric and manufacturing company "In addition to showing the most modern and efficient methods of securing coal, the film also covers preliminary testing for explosive gases, rock-dusting to prevent explosion of coal dust, and concludes with views of first-aid instructions being given to employees, and first-aid and minerescue teams." Kansas

623.8 NAVAL ARCHITECTURE

For a discussion of ships and shipping in general see class 387. For boating as a sport see class 797.1

Hull design. (General interest ser.) 8min 16-sd-apply 35-sd-f-apply Gaumont British 623.8

British 623.8

"The film opens with a picture of the 'Mauretania' and this is followed by a description of the methods used in producing the wax model. This section is in considerable detail. Next is a view of the Yarrow Experimental Tank, and the model—which is fitted with an electric motor and screw propeller—is seen being lowered into the water. An actual test run is portrayed, and it is possible to get some idea of the wave pattern. One is then introduced to the method of producing artificial waves, and a run is made in rough water. The film closes with pictures of one or two modern ships. The photography is very good and the spoken commentary excellent. The film is rather too brief to satisfy the needs of technical students. .. (Suitable for) naval architecture and marine engineering instruction for students in technical colleges and universities; of general interest to people living in seaports and shipbuilding centres." British film inst.

c Guide

623.825 Submarines

Submarine service. 1R 16-si-sd-loan 35-sisd-f-loan Navy recruiting serv. 623.825 "Training personnel for submarine duty. Life on board a submarine. Operating submarine and undersea rescue apparatus."

Producer el-jh-sh-c

624 BRIDGES

How Brooklyn bridge was built. 10min 16-si-\$10.99 35-si-f-nf-apply Bray 624 "A combination of photography and animated drawings shows . . how this famous structure was erected." Producer jh-sh-c

80min 35-si-nf-loan Span supreme. 624 inst. of steel construction Operations in the construction of George Washington bridge, New York

625 RAILROAD AND ROAD ENGINEERING

For history and discussion of railroads in general see class 385

Conquest of the Cascades. 1R 16-si-loan 35-si-f-nf-loan General electric 625 The new Cascade tunnel and its contribution to easier and faster transportation between the East and the seaports of the Pacific Northwest

15min 16-si-\$24 1931 Railroad safety. 625 Eastman

Film on modern railroad transportation. Surveyors lay out the road, ties are placed in position and rails are spiked to the ties. The road-bed is banked, and guard rails are laid at curves to prevent accidents. A track inspector notes defects in a track and repairs are made immediately. A snow fence is set in position. A snow plow clears the track. An inspector tests an engine for broken wheels and hot bearings. An engineer has his watch regulated, and his eyes tested. A telephone report is made to the dispatcher from each station as a train passes. Wayside signals and automatic train controls are explained

el-ih Guide

Ties of steel. 1R 16-si-loan 35-si-f-nf-loan General electric

"Converting worn-out rails into railroad ties through electric welding." California

625.7 Roads. Highways

Building forest roads. 1R 16-si-loan 35-sinf-loan 1922 U.S. agric.

A Bureau of public roads film
"Men and machinery at work in the
national forests, pushing good highways
through the great mountains and woodlands." Producer sh

Concrete road construction. 2R 16-si-loan 35-si-nf-loan 1929 U.S. agric. 625.7

A Bureau of public roads film "Illustrates the essential requirements in the design of concrete pavements to provide the necessary stability to resist the destructive action caused by the volume, weight, and speed of modern motor traffic.

Shows the principal operations in the most advanced methods of concrete-pavement construction." California

2R 16-si-sd-loan Highway beautification. 2R 16-si-s 35-si-sd-nf-loan 1932 U.S. agric.

A Bureau of public roads film
"Suggests ways to preserve and enhance
the beauty of roadside plant material and
otherwise beautify highways, and add to
the safety and comfort of travel by
elimination of obstructions interfering with
vision and by the removal of eyesores. Recommendations are made concerning construction scars, steep banks, scenic lookouts, guard ralls, automobile camps,
bridges, etc." California

Men who build the roads. 1R 1 35-si-nf-loan 1927 U.S. agric. 1R 16-si-loan

A Bureau of public roads film
"A tribute to the courage and ingenuity
of the builders of our mountain highways,
with glimpses of them engaged in the task
of penetrating the rocky barriers of Glacier
National Park with a modern road." Iowa State college

626.8 Irrigation

Irrigation. 15min 16-si-\$24 1928 Eastman

The Roosevelt project; the Imperial Val-ley project; irrigation in the region of San

ley project; irrigation in the region of San Diego
"One of the most important conquests of nature by man has been the increase of food production by irrigation. This film thru detailed illustrations gives an understanding of how the once barren desert land has been transformed into productive regions that add to our national wealth." Indiana el-jh-sh-c Guide

Irrigation—a brief outline. 1R 16-si-loan 35-si-nf-loan 1935 U.S. agric. 626.8

A Bureau of agricultural engineering film "Covering the important points in irrigation. For public schools especially." Producer

Orchard irrigation. 2R 16-si-loan 35-si-nf-loan 1932 U.S. agric. 626.8 A Bureau of agricultural engineering film "Up-to-date practices in orchard irriga-tion by contours and terracting, and by the pressure, the basin, and the overhead syspressure, the bas tems." Producer

Preparing to irrigate. 1R 16-si-loan 35-si-nf-loan 1932 U.S. agric. 626.8

A Bureau of agricultural engineering film "Different types of ditch-making machinery; location for field ditches; necessity for keeping ditches free from moss and weeds." California

Story of federal reclamation. 2R 35-si-nf-loan 1924? Bur. of reclamation 626.8

"Government reclamation of waste lands: building of dams in Montana, Wyoming, Colorado, Arizona, New Mexico, California, and Washington." Texas

627.8 Dams

Boulder dam. 6R 16-si-\$144 35-si-nf-\$450 Boulder dam serv. bur.

In color "Created "Created primarily for engineers and technical societies." Producer
The following are also available: 1R 16-si-\$3 35-si-nf-\$112.50; \$4R 16-si-\$18; also three \(^14R\) versions at \$6 each and one

slightly longer at \$9. These shorter versions show development and progress made on the Project from the first surveys and road-building down to the present final operations. The river during early stages of work, high-scaling, blasting, concrete pouring operations. Fabrication of the gigantic penstock pipe at the Babcock & Wilcox plant, transporting and lowering it to the canyon. The spillways, intake towers, movement of large penstock pipe and the dam as it appeared when half completed. The beginning of water storage, completed dam, the intake towers and spillways, power house, boating on Boulder Dam lake, high tension transmission towers and, finally, the roadway which crosses the dam Boulder dam—Continued

628 SANITARY ENGINEERING

628.1 Water supply engineering

est and water. 1R 16-si-sd-loan 35-si-sd-nf-loan 1930 U.S. agric. 628.1 Forest and water.

A Forest service film
"Points out the vital influence that the forest has on water supply. Photography made largely in the mountains of western North Carolina." California

New York water supply. 15min 16-si-\$24 1928 Eastman

"Gives an insight into a typical sanitary water system for a large city. Scenes and animations picture methods used in bringing water from the Catskills, through the mountains and under the Hudson River, to New York City." Producer el-jh-sh-c Guide

Purifying water. 15min 16-si-\$24 1928 628.1 Eastman

"Lake water, the 'crib,' animation of operation of 'crib,' the pumping station. Removing sediment, settling tanks and animation showing operation, action of aluminum sulphate, sand and gravel aluminum sulphate, sand and gravel filters, animation showing action, aftiration plant, cleaning sand, how water is contaminated, a safe well. Disinfecting water, chlorination plant, animation showing action of chlorine. Testing water, bacteriological laboratory, how tests are made." Ohio jh-sh-c Guide

Water. (General science ser.) 12min 16si-\$24 35-si-nf-\$80 prior 1927 DeVry 628.1

By Morris Meister, head of science de-partment, Haaren high school, New York

city "Simple "Simple experiments show water in liquid, solid and gaseous forms; the water cycle in nature; how man has adapted the properties of water to his own use: steam as power; a water-supply system; methods of irrigation." Kansas jh-sh Guide

628.3 Sewage disposal

Sewage disposal. 15min 16-si-\$24 1930 628.3 Eastman

"Deals with purification by Imhoff tank and sprinkling filter—purification by sand filtration—discharging sewage into the ocean with the ebb tide." Producer el-Jh-sh-c Guide

Waste disposal in cities. 15min 16-si-\$24 35-si-nf-\$55 1921 Soc. for visual educ.

"Shows methods of sewage disposal and purification; informative but popular in character. Suitable for any audience, but especially useful in connection with sewage disposal campaigns." N.Y. (State). Dept. of health

jh-sh

628.7 Rural water supply

Turn on the water! 1R 35-si-nf-loan 1926 U.S. agric. 628.7

A Bureau of agricultural engineering film

"Danger of impure water on the farm; good and bad water-supply systems, and examples of both kinds; how to install inexpensive systems. Particularly for rural use." Texas

628.9 Lighting

Light of a race. 1R 16-si-loan 35-si-f-nf General electric loan 628.9

"Historical account of artificial illumination which depicts, in successive scenes, the use of the flint, stick and groove, drill, and match to obtain fire; and the use of the torch, stone lamp, candle, oil lamp, gas lamp, and the incandescent lamp as sources of light." Producer el-jh-sh

629.1 AERONAUTICS

Aircraft design. (General interest ser.) 11min 16-sd-apply 35-sd-f-apply Gaumont British 629,1

mont British

"Scenes showing various types of aircraft taking off, flying, and doing aerobatics. Metallurgical laboratory at the National Physical Laboratory showing castings, heat treatment and rolling of alloys. Wind tunnel tests showing how lift and drag are measured. View of model aircraft being tested on rotary arm. The film ends with other types of aircraft in the air.

The basic side of design is not dealt with in the film.

A background film for advanced students and a general interest film for all." British film inst.

Guide

Balloon racing. 15min 16-loan 1930? Goodyear 15min 16-si-loan 35-si-nf-

"Various details leading up to the take-off . . . Several of these balloons in the air." Producer jh-sh

Flying across America in 16 hours with United air lines. 24min 16-si-loan United air lines

United air lines 629.1

"A 2,633-mile Coast-to-Coast flight... The forests, rivers, valleys and mountains of the Pacific coast, the gigantic Boulder Dam and Reservoir, the Great Salt Lake, the Continental Divide and the Wyoming plateau country, the rolling Nebraska lands, the farms of the Midwest, Chicago, Cleveland, and finally New York... Interspersed with... aerial views of interesting points along the historic Overland Trail are flight photographs of the stream-lined Boeing monoplanes... Airplane construction, engine overhaul and maintenance, weather observation and reporting, radio telephone communication between ground

Flying across America—Continued stations and planes in flight, lighting for night flying, directive radio beacon service and other phases of air transportation are portrayed." Producer

Jack wins his wings. 1R 16-si-sd-loan 35-sd-f-loan Navy recruiting serv. 629.1 "Naval Aviation Training in Pensacola, Florida; with comedy and romance plot." Producer jh-sh

Magellan of the air. 15min 16-si-loan 35-si-nf-loan Goodyear 629.1

si-nf-loan Goodyear

"Deals principally with the activities of the 'Magellan of the Air' IDr Hugo Eckenery while in America, immediately following his circumnavigation of the globe. He was Cleveland's distinguished guest on the final day of the National Air Races, where about 150,000 people heard him speak and gave him a rousing reception. The film shows the vast throng cheering the master navigator of the air and waving good-bye as he boarded a Goodyear airship for Akron, where he was given another warm greeting. He is seen conferring with Goodyear-Zeppelin officials and inspecting the huge airship dock, in which the Goodyear organization constructs giant ships for the United States Navy. Some . . . 'shots' of the Graf's visit to Akron, on its flight from South America to the World's Fair in 1933, are shown." Producer jh-sh-trade

e-point landings. 15min 16-si-loan 35-si-nf-loan 1931? Goodyear **629.1** One-point landings.

"The performer is an airplane equipped with Goodyear Airwheels, great balloon tires, so large that the wheel disappears, leaving only axle and tire. Thus shod, the piane makes breath-taking landings first on one wheel, then on the other, then travels alternately on the right and left wheels. It makes bouncing landings—that is two-point landings on the front wheels only, then takes off for a short distance, landing again with the full shock of landing absorbed by the tires. The dependability and power of airplane brakes is also shown when the plane is held steady without movement except for a lifting of the tail with the motor at full throttle. Ground loops . . are shown safely made." Producer jh-sh "The performer is an airplane equipped

Parade of comic balloons. 15min 16-si-loan 35-si-nf-loan 1930? Goodyear 629.1

"Staged by R. H. Macy & Company, New York City. . Spectators wildly cheer as they see freaks come back to life in a demonstration that heralds the coming of demonstration that heralds the coming of a great holiday. Monster balloons, hellum inflated, made by the Goodyear Tire & Rubber Company, represent glants, animals and whatnot. Tony Sarg, famous artist, did the decorating." Producer el

Sky fleets of the navy. 1R 16-sd-loan 35sd-f-loan Navy recruiting serv. 629.1 "Aviation in the Navy and part it plays in coordinating with surface vessels. Maneuvers, showing planes taking off aircraft carriers and from bases ashore, firing torpedoes and dropping bombs. . Scenes of a sham battle at sea." Producer

Story of the airship. 15min 16 35-si-nf-loan 1933? Goodyear 15min 16-si-loan "A picture of exceptional interest. There isn't another like it. Tells of the beginning of American balloon-making and flying and development of the small 'blimp,' student training for airships. The Graf Zeppelin soaring over New York City. Interior scenes of this great ship give spectator idea of many conveniences and comforts of air travel." Minnesota

air travel." Minnesota

S.S. Akron. 30min 16-si-loan 35-si-nfloan 1931? Goodyear 629.1

"Depicts various stages of the ship's construction from the time Rear Admiral W.

A. Moffett . . . drove the golden rivet into
the first main frame on November 7, 1929
. . . until the first trial flight on September
23, 1931. . . Presentation of the official
colors for the ship, on Navy Day, 1930. . .
Christening of the ship August 8, 1931, by
Mrs. Herbert Hoover, then First Lady of the
Land. . Lieut. Com. C. E. Rosendahl, first
captain of the Akron, is shown with his
officers and men, while various shots of the
inside of the craft, which was nearly twice
the size of the Graf Zeppelin and about
three times the size of the Los Angeles,
and took 22 months to construct." Producer U.S.S. Akron.

629.2 AUTOMOBILES

Along the firing line, or the story of a spark plug. 30min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 629.2

Made in cooperation with the Champion spark plug company
"Story of the spark plug; use in gasoline engines, fire trucks, airplanes, etc., with animated drawing to show action of spark plug; making insulators, brass caps and electrodes with assembling, point setting, and packing." Colorado
"[Useful in] general science, physics, commercial geography and shop work [classes]" Am. museum of nat. hist.

sh

Automobile. 15min 16-si-\$24 1929 East-629.2

"By tracing production and use of iron, rubber, glass and gasoline in the automobile, this film presents a striking picture of the interdependence of industries." Producer el-jh Guide

Automobile lubrication. 15min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 629.2

Made in cooperation with the Standard

Made in cooperation with the Standard oil co. (Indiana)

"A motorist is shown details of automobile lubrication in an efficient greasing station. A thorough check of his car is made to be sure that no detail is overlooked." Utah

"[Useful in shop work and general science [classes]" Am. museum of nat. hist.

Cat and the kit. 1R 16-si-loan 35-si-f-nf-General electric loan

"Animated picture, designed to promote the use of G-E Edison Mazda automobile lamps and to encourage the carrying of spare lamps." Producer jh-sh-c

Dependability. 1R 16-si-loan YMCA 629.2

"Uses of the Dodge car in the World
War, on the Gobie desert, and in trick
tests." Distributor

sing an all-steel automobile body. 30min 16-si-loan 35-si-nf-loan prior Making Bur. of mines 629.2

Made in cooperation with the Edward G.

"Reel one depicts mining, smelting and conversion of iron ore into steel, also pouring ingots and rolling ingots into sheets.

Making of an all-steel automobile body —Čontinued

—Continued

A drafting room shows men shaping wooden patterns for metal dies. Reel two proceeds with the stamping of the largest pieces of pressed steel ever made—the entire side panel—down to welding of parts and assembling of the entire automobile body. [Useful in chemistry, shop work and general science [classes]" Am. museum of nat. hist.

sh

car. 30min 16-si-loan Metals of a motor 35-si-nf-loan 1933 Bur. of mines 629.2

"A technical film which shows how a metallurgist determines the precise metal for each particular part of a motor car. The film tells the story of steel, molybenum, nickel, chromium, aluminum, lead, copper, tin, antimony, and zinc and how metals and alloys have been developed after years of research to make for safety and comfort in our modern cars. [Useful in] chemistry, general science and shop work [classes]" Am. museum of nat. hist.

Rhapsody in steel. 2R 35-sd-nf-loan 1934 Ford

"Fantastic and highly modernistic por-trayal of the manufacture at the Rouge Plant of the Ford Motor Company, with special musical score." Producer jh-sh-c-trade

629.213 Safe driving

Everybody's business. 11min 16-si-sd-loan 35-sd-nf-loan 1935 Chrysler 629.213

Narration of sound version is by Alols Havrilla

A plea for more careful driving. Shows how some accidents happen and gives an interesting test of two cars driven across a city, one obeying traffic laws and one ignoring everything but speed. Interesting and illuminating

Once upon a time. 15min 16-si-sd-loan 35-si-sd-nf-loan 1934 Metropolitan life

Also obtainable in technicolor (35-sd-f-

Also obtainable in technicold loan)

"This picture is an animated cartoon with musical symphonies (on the sound film) and shows a fairy-land setting used to emphasize the need of safety on the streets." Nat. safety connoil "Well-known fairy tale and Mother Goose characters become involved in the present-day types of street and highway accidents through the machinations of two bad goblins—'Carelessness' and 'Discourtesy.' The film ends with emphasis upon safe driving methods, following the banishment of these goblins by the good fairies 'Carefulness' and 'Courtesy.' " Producer el-jh-sh

Saving seconds. 11min 16-si-sd-loan 35-si-sd-nf-loan Aetna 629.213

sd-nt-loan Aetna 029.213

Produced by Castle and is also available in 2 reels (16-si-loan 35-si-nf-loan Aetna)

"The purpose of this picture is to prove the folly of attempting to save seconds at the possible sacrifice of human lives. The photography is of the best, showing excellent 'shots' of collisions, skids and other all too common highway accidents."

Nat. safety council

"Good for general audiences as well as for classroom use." Illinois

"[Useful in civics [classes]" Am. museum of nat. hist.

of nat. hist. el-Jh-sh-c Guide

Why be careless? 15min 16-si-loan 35-si-nf-loan 1928? John Hancock 629.213

"A series of 'right' and 'wrong' driving practices designed for the purpose of preventing highway accidents. The responsibility of both the pedestrian and the automobile driver is emphasized." Nat. safety council

630 AGRICULTURE

Farm. 15min 16-si-\$24 1931 Eastman 630 m. 15min 16-si-\$24 1931 Eastman 630

"A group of school children visit a
farm, where they see the farmer's home,
his barns, cows, ducks, chickens, pigs,
sheep, and horses. The children romp in
the orchard, feed the horses, play with
the lambs, and revel in the strawberry
patch. The farmer is shown as he harvests green corn. Apples are gathered
in the orchard, and many other farm
products are shown in the process of harvesting. In final scenes the cows are
milked, and the milk is poured into cans
for shipment." Producer
el Guide el Guide

Farmer. (Vocational guidance ser.) 12min 16-si-\$24 35-si-nf-\$80 1927? DeVry

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university
Visualizes life on a farm, showing modern scientific methods and modern mechanical equipment. Shows social, health and family advantages as well as problems of isolation, individualism and marketing disorganization

Jh-sh Guide

Master farmer. 2R 16-si-loan 35-si-nf-loan 1929 U.S. agric.

A Bureau of agricultural economics film "The master-farmer movement as exemplified by results in Oklahoma; scenes illustrating the farm and home life of farmers who have made a success of farming in the fullest sense of the word." California

Yoke of the past. 3R 16-si-loan 35-si-f-nf-loan General electric 630

"Records a century of progress in agriculture. It presents a sympathetic picture of the farmer's problems and is also intended to inform the farmer, himself, of modern methods by which these problems are being solved." Colorado

630.942 Agriculture in England

This was England. (Face of Britain ser.) 21min 16-sd-apply 35-sd-f-apply Gaumont British 630,942

mont British

"An attempt to show the existence of a continuous tradition in Suffolk, from the Stone Age to the present day. The film is divided into a number of sections linked by subtitles, each section dealing with a separate custom, and the title assigning its historical place. The sections cover Prehistoric times, Ancient Britain, Roman Britain, the Angles and Saxons, the Middle Ages, the 19th century, and the present; and include fiint-knapping field drainage as practised in very early times, handsowing of seed, thatching, and modern agricultural methods. All these practices are shown as living side by side to-day. The sea rounds off the film at both ends, to give the effect of permanence and also to symbolise the ebb-tide of prosperity!

This was England—Continued

The commentator explains, too, that with the advancing years the sea washes away the land. The commentary is in a Suffolk voice, and to a large extent, also, characters in the film are allowed to explain their methods to us directly. An old farmhand, illustrating hand-sowing, charms us by his naturalness and disregard of the camera. . General interest film for all and a background film to illustrate geography lessons for older children." British film inst. Guide

630.952 Agriculture in Formosa

Farmers of Formosa. 34R 16-si-\$17.50 630.952 Burton Holmes

"Chinese laborers under Japanese control on the tea plantations. Cultivation of rice and the sugar industry." Producer

631 The farm

Magic in it. 2R 35-si-nf-loan 1926 U.S. agric.

"Points out the advantage of using a farm-accounting system that makes possible a yearly summary of the farm business. Motion picture 'magic' is used to emphasize the lesson taught." Colorado

631.18 Marketing of farm produce

Marketing live poultry. 1R 16-si-loan 35-si-nf-loan 1932 U.S. agric. 631.18 631.18

A Bureau of agricultural economics film "Points out the necessity for culling on the farm; contrasts old marketing meth-ods with the modern; shows care of live poultry en route to market." Producer

631.4 Soils

Anchored acres. 1R 16-si-loan 35-si-nf-loan 1923 U.S. agric. 631.4

An Extension service film

An extension service nim
"Soil erosion damage and approved modern engineering practices for overcoming
this evii. Methods shown include brush
and soil-saving dams, terracing, and crop
rotation. Produced in cooperation with
the University of Nebraska by the States
Relations Service." Indiana

Save the soil. 2R 16-si-loan 35-si-nf-loan 1932 U.S. agric. 631.4

An Extension service film
"A general discussion of the problem of soil conservation. This very interesting film shows the part that soil has played in history. The subject is so treated that it is of wide general interest." Iowa state college shoc sh-c

Saving the soil by terracing. 1R 16-si-loan 35-si-nf-loan 1928 U.S. agric. 631.4 A Bureau of agricultural engineering film

"Methods of constructing terraces to prevent the washing away of fertile top soil, gulleying, and other forms of erosion in Southeastern States." Texas

631.5 Farm operations

Clearing land. 2R 16-si-loan 35-si-nf-loan 1929 U.S. agric. 631.5 A Bureau of agricultural engineering film

"Shows various methods of stump re-moval." Producer

Dynamite—concentrated power. 1R 16-siloan 35-si-nf-loan 1926 U.S. agric. 631.5

A Bureau of agricultural engineering film "Farm uses of dynamite, "tumps, breaki particularly in rarm uses of dynamite, particularly in blowing out stumps, breaking and removing boulders, and in blasting ditches. The technique of using dynamite, and precautions to be observed. Particularly for farmers." California

Haymaking. 2R 1 1932 U.S. agric. 16-si-loan 35-si-nf-loan

A Bureau of agricultural economics film "Various methods of making hay, with special reference to the modern laborsaving systems." Producer

nate. 1R 16-si-loan 35-si-U.S. agric. 631.5 How seeds germinate. nf-loan 1931

A Bureau of plant industry film
"Show the actual germination of crimson
clover and spring vetch over periods of
from 3 days to an entire week. These
unusual slow-motion screen studies of
plant growth were made by taking pictures
or 'frames' at intervals of 3 to 7 minutes." California

Testing seeds in soil. 1R 16-si-loan 35-si-nf-loan 1931 U.S. agric. 631.5

A Bureau of plant industry film "Contrasts the older methods of testing seed in blotters with the newer method of making seed-germination tests in soil. Shows how the soil tests are made." Producer. ducer

631.7 Irrigation. See 626.8

632 Hindrances. Pests

632.6 Injurious animals

Eastern woodchuck and its control. 16-si-loan 35-si-nf-loan 1929 U.S. 632.6 agric.

A Bureau of biological survey film "Shows how this destructive rodent may be kept in check." Iowa state college sh

How to get rid of rats. 1R 16-si-loan 35-si-nf loan 1927 U.S. agric. 632.6 632.6

A Bureau of biological survey film "Interesting insights into the habits of this rodent vandal and visual instruction in how to get rid of rats.'" Iowa state college

Million-dollar pockets. 2R 16-si-loan 35-si-nf-loan 1928 U.S. agric. 632.6

A Bureau of biological survey film "The pocket gopher, its habits, damage to the alfalfa crop, and methods of control." Producer

632.7 Injurious insects

Beware the Japanese beetle. 1R 16-si-loan 35-si-nf-loan 1934 U.S. agric. 632.7 A Bureau of entomology and plant quar-

antine film

A popular picture containing the important points of "Japanese beetle—method of control" and "Japanese beetle—life history, damage, and spread", listed below, and designed especially for use in public schools "Shows origin, date of introduction of this pest, how to identify it, life cycle of the beetle, and methods of control." Colorado

Corn and the borer. 1R 35-si-nf-loan 1927 632.7U.S. agric.

A Bureau of entomology and plant quarantine film

Companion film to "Corn borer and what to do about it" listed below

"History of the European corn-borer in-festation. Quarantine and inspection methods employed to check the spread of the insect." Producer

Corn borer and what to do about it. 16-si-loan 35-si-nf-loan 1927 U U.S. 632.7 agric.

A Bureau of entomology and plant quar-

antine film

antine nim
"The life history of the European cornborer and methods recommended to corn belt farmers for keeping this dangerous insect pest under control. Life history photography includes the laying of eggs by the moth, the hatching of the young larvae, molting, and emergence of the adult. Various methods of control, including destruction of the stalks by burning, and shredding are emphasized." Indiana jh-sh-c

Gipsy and brown-tail moths—control methods. 1R 35-si-nf-loan 1928 U.S. agric. 632.7

A Bureau of entomology and plant quarantine film

"The story of man's fight to prevent further spread of brown-tail and gipsy moths; spraying, dusting, and other control methods." Producer

Gipsy and brown-tail moths—life history. 1R 35-si-nf-loan 1928 U.S. agric. 632.7

A Bureau of entomology and plant quarantine film

"Life cycle of the gipsy and brown-tail moths and a record of their invasion and spread in the United States." Producer

Japanese beetle-life history, damage, and spread. 2R 16-si-loan 35-si-nf-loan 1934 U.S. agric. 632.7

A Bureau of entomology and plant quar-

"Shows origin and date of introduction of this pest and how to identify it; life cycle of the beetle, extent of damage done." Producer

Japanese beetle-methods of control. 16-si-loan 35-si-nf-loan 1934 U.S. 632.7

A Bureau of entomology and plant quarantine film

"Shows in detail all present methods used in combating the beetle." Producer

Old Jake wakes up. 1R 35-si-nf-loan 1927 632.7 U.S. agric.

A Bureau of entomology and plant quarantine film

antine film
"A short corn-borer picture designed to
awaken interest in the spring clean-up
campaign and supply comedy for cornborer meetings. Includes trick photography, nightmare scenes showing 'Old Jake'
pursued by fierce corn-borers ten feet
long." Indiana

1932 Potato enemies. 15min 16-si-\$24 632.7 Eastman

Eastman

Edited by the New York state college of agriculture at Cornell university
Potato enemies which attack the vines above the ground, such as flea beetles, Colorado potato beetles, leaf hoppers, and tarnished plant bugs. Also underground insects and diseases that attack potato tubers, such as wireworms, wheat wireworms, Rhizoctonia fungus, potato scab, millipedes, white grubs (in adult stage May beetles), slugs, and flea beetle larvae

Jh-sh Guide jh-sh Guide

White flies and tomatoes. (Natural history ser.) 8min 16-sd-apply 35-sd-f-apply 632.7 Gaumont British

Gaumont British

Gaumont British

G32.7

"The first part of the film is a speededup picture of germination and growth of
the tomato plant, ending with the fertilization of the flower and the growth of the
fruit. The white flies are then shown in
action on the plant, and by skilful microphotography their life cycle is shown, together with the means by which they
injure the plant. A natural parasite—a
small species of wasp—is also shown in
action by means of micro-photography,
and its method of parasitism is clearly
brought out. The film concludes with a
pictorial demonstration of the means for
ridding tomato glass-houses infested with
white fly by the use of hydrocyanic gas.

The commentary . . . presupposes an
elementary knowledge of the normal stages
of the average life cycle of insects. For
class-room work this portion of the film
would need to be watched through several
repetitions before all the details were
fully grasped. At the same time, the film
would, with considerable comments by the
teacher, form an excellent demonstration
for entomological purposes. . . [Useful,
in nature study, horticulture, botany and
entomology [classes]" British film inst.

Guide Guide

Why moths leave home. 1R 35-si-nf-loan 1930 U.S. agric. 632.7

A Bureau of entomology and plant quar-

antine film
"Shows damage done by clothes moths
to fabrics, feathers, bristles, and upholstery and different methods of getting rid
of this pest." Producer

633 Field crops

633.1 Cereals. Grains

America's granary. 15min 16-si-\$24 35 nf-\$60 1929? Films of commerce 15min 16-si-\$24 35-si-633.1

Produced by Pathe
"Showing America as the granary of the
world. The evolution of reapers and the
development of great wheat farms. Planting, harvesting and threshing. . .Maps and
animated diagrams." Distributor

lh

Corn. 15min 16-si-\$24 1928 Eastman

633.1 "Field of ripe corn, shocked corn, husking corn, selecting seed ears. Tractor plowing, disk and smoothing harrows. Testing seed, shelling and sifting, seed corn planter, cultivator, cutting corn for ensilage, silo. Corn borer, stubble burning apparatus. The husking contest, shelling machine. Corn fiakes, corn starch. Feeding stock." Ohio Feeding stock." Ohio Guide

Food shot from guns. 20min 16-si-loan 35-si-nf-loan Quaker 633.1

"Story of the growth, harvesting, milling, and packing of grain. The growth of rice in the Orient and in the United States; also the unique process of puffing grains, made visible through slow motion photography." Producer

A good part of this film is taken in the factory of the Quaker oats company and the boxes of this company are, of course, used in demonstrating various processes. There is also a close-up of the box for puffed rice and one for that of puffed wheat

wheat "¡Useful in¡ geography, commercial geog-graphy and domestic science [classes]" Am. museum of nat, hist. el-]h-sh

History of corn. 15min 16-si-loan Castle 633.1

This film replaces the earlier "Miracle of corn" also produced by Castle "We see an Indian squaw grinding corn in a mortar, then pioneers husking corn by hand for a brookside mill. Modern machinery next takes us through all the milling processes from crop to cornflakes, [Useful inj history, geography and commercial geography classes]" Am. museum of nat. hist. el-jh-sh

Our daily bread. 1R 16-si-loan 35-si-f-nf-loan General electric 633.1

"Visualizes the evolution of our wheat industry. It shows the development of the means of harvesting, threshing, milling and baking, beginning in each case with the primitive and concluding with the most modern apparatus in use. [Useful ingeography, nature study and domestic science [classes]" Am. museum of nat. hist. el-jh

Ten pounds to the bushel. 20min 16-siloan 35-si-nf-loan Quaker 633.1

"The story of oats from the cutting of the grain on the farm, through the sorting machines, the classifying in the laboratory and the two cooking processes, to the rolling, weighing and final filling of the boxes for shipment. [Useful in] geography, commercial geography and domestic science [classes]" Am. museum of nat. hist. el-Jh-sh

Wheat. 15min 16-si-\$24 1928 Eastman 633.1

"Visualizes the evolution of the wheat industry from pioneer methods of farming to big-scale farming with tractor-drawn machines, harvesting 'combines,' and storage in huge grain elevators." Producer el-Jh-sh-c Guide

Wheat or weeds? 1R 16-si-loan 35-si-nf-loan 1924 U.S. agric. 633.1

A Bureau of agricultural economics film "Story of wheat cleaning and the operation of wheat cleaning machines at the thresher; how clean wheat saves the profits, otherwise eaten up by dockage deductions." Indiana

633.3 Beans

Do you know beans? 1R 16-si-apply Edited pictures Germination and life history of the bean

Four men and the soy. 2R 16-si-loan 35-si-nf-loan 1925 U.S. agric. 633.3 A Bureau of plant industry film produced in cooperation with Ohio state university

"Four men, each engaged in a different type of farming, find a solution for their particular problems in the raising of soy beans. They all make a pilgrimage to the State Agricultural College, and attend a 'soy beans day.' The various types of soy beans and methods of raising them are clearly shown." Iowa state college sh.c

633.4 Potatoes. See 635.2

633.5 Textile fibers

Films on growing of cotton have been classed in 677.2 in order to keep all this material together

633.8 Hops

Hop growing. (Geography ser.) 11½min 16-sd-apply 35-sd-f-apply Gaumont 35-sd-f-apply 633.8

Methods of hop growing, etc. Guide

634 Fruits. Orchards

Where nature smiles. (Seeing Canada ser.) 6min 16-si-\$9.84 35-si-nf-apply Canadian gov't. 634

"This film shows the great Niagara fruit district. The opening of the picture deals with the trees in blossom and later one visits this famous district at harvest time and sees the fruits being picked from the trees and distributed by means of special refrigerator car, electric trolley lines, and other ways. [Useful in geography, commercial geography and nature study [classes]" Am. museum of nat. hist. el-jh-sh

634.1 Apple

Apples of Annapolis. (Seeing Canada ser.) 5min 16-si-\$8.19 35-si-nf-\$43.26 Canadian gov't.

The famous Annapolis valley, Nova Scotla, Canada's most extensive apple growing region in blossom time and at harvest time. Containing many pictorially beautiful scenes, illustrating the various phaces of the apple industry. phases of the apple industry

"¡Useful in geography, domestic science, commercial geography and nature study [classes]" Am. museum of nat, hist.

el-jh-sh

634.3 Citrus fruits

Golden orange. 15min 16-si-loan 1935 Castle 634.3

This film replaces an earlier one titled:

This film replaces an earlier one title.

"Golden health"

A short history of the beginnings of the orange industry. Then follows the planting of seeds, transplanting of young trees, grafting and final setting in permanent grove. As the fruit ripens it is carefully picked and transported to packing houses where it is washed, air-dried and graded. The oranges are trade-marked, wrapped and packed for shipping

"[Useful in geography, hygiene, commercial geography, nature study and domestic science [classes]" Am. museum of nat. hist.

el-jh-sh

634.5 Peanuts

Peanuts. 15min 16-si-\$24 1928 Eastman

"Shows preparation of the ground: plowing, distributing lime, planting—harvesting: digging, loading shocks, picking pods—peanut products: cooking, salting, making peanut butter and peanut candy." Producer el-jh Guide

Peanuts-\$30,000,000 worth. 1R 35-si-nf-1923 U.S. agric.

Bureau of plant industry film "Culture of America's peanut crop in Virginia and the Carolinas, from the preparation of the soil to delivery at the shelling factory." Producer crop in

634.7 Small fruits

About bananas. 15min 16-si-loan 1935 Castle 634.7

This film takes the place of an earlier one titled "Banana land"
"Complete presentation of the banana industry from the clearing of the jungle and the planting to the shipment of the fruit to the American markets. Scene laid in Central America." Wisconsin "Useful in geography, commercial geography, nature study and domestic science (classes," Am. museum of nat. hist.

634.9 Forestry

A B C of forestry. 1R 16-si-sd-loan 35-si-sd-nf-loan 1933 U.S. agric. 634.9

A Forest service film Teaches the fundamentals of tree growth and good forestry practices

Big game and the national forests. 1R 16-si-loan 35-si-nf-loan 1933 U.S. agric. 634.9

A Forest service film in cooperation with the Bureau of biological survey "Brings out the relation of the national forests to the preservation of big game and discusses management problems." Producer

est and health. 1R 16-si-sd-loan 35-si-sd-nf-loan 1928 U.S. agric. 634.9 Forest and health.

A Forest service film
"How the forests minister to the spiritual and physical health of mankind."

Forest and wealth. 1R 16-si-sd-loan 35-si-sd-nf-loan 1928 U.S. agric. 634.9

A Forest service film
"How the forest contributes to industry
and to the comfort and wealth of mankind." Producer

Forest or wasteland. 3R 16-si-sd-loan 35-si-sd-nf-loan 1931 U.S. agric. 634.9

Forest service film A Forest service film
"Shows what the forests mean to us;
how forests have been cut, until the land
is stripped and fires and destruction follow; constructive measures adopted that
have proved inadequate; and considers the
question: What must we do about our
forests?" California
Withdrawn Withdrawn

ih-sh

Forests and streams. 1R 16-si-loan 35-si-nf-loan 1931 U.S. agric. 634.9

A Forest service film
"To teach the importance of protecting
the forest soil and maintaining its waterstorage capacity." Producer

Forests serve man. 1R 16-sd-loan 35-sdnf-loan 1935 U.S. agric.

A Forest service film "Illustrated lecture on the importance of forests to mankind." Producer

How forests serve. 1R 16-si-loan 35-si-nf-loan 1931 U.S. agric. 634.9

A Forest service film "Designed to teach the values of the forest to mankind and the importance of proper management of the forest." Pro-

Reforestation. 15min 16-si-\$24 1928 East-

man 'Picture opens with a scene in a country schoolroom where instructor is showing some motion pictures; close-up on screen shows fine forest regions; a desolate forest 'fades in.' Close-up shows result of wasteful cutting. A reforested region. A tree nursery, workmen loading 10,000 red pine seedlings, 'heeling-in' seedlings. A school project, pupils planting seedlings in barren area. Proper methods of planting are shown. Results after three five, and ten years of growth are shown.' Ohio el-jh-sh-c Guide

634.909 Civilian conservation corps

CCC accomplishments in Pennsylvania. 15min 16-sd-loan 35-sd-nf-loan 1935 634.909 Dept. of interior

"Covering work in North and South parks, Allegheny County (near Pittsburgh); Cook Forest State Park at Cooksburg, Pennsylvania; five parks in the vicinity of Johnstown, Pennsylvania, and the French Creek recreational area between Reading and Philadelphia." Producer

el-Ih

Civilian conservation corps at work—Arizona. 1R 16-si-loan 35-si-nf-loan 1934 634.909 U.S. agric.

A Forest service film
"A typical CCC camp, and some of the
activities of the men in forestry, road improvement, and various other projects."
Kansas el-jh-sh-c

Civilian conservation corps at work—Colorado, Wyoming, and South Dakota. 1R 35-si-nf-loan 1934 U.S. agric. 634.909

A Forest service film describing various phases of the work

Civilian conservation corps at work—Montana and Idaho. 1R 16-si-loan 35-si-nf-loan 1934 U.S. agric. 634.909

A Forest service film "On various phases of Civilian Conser-vation Corps work." Producer el-jh-sh-c

Civilian conservation corps at work—mosquito control. 1R 16-si-loan 35-si-nf-loan 1934 U.S. agric. 634.909

Forest service film "Digging ditches to provide quick run-off of out-going tidewater in salt-marsh lands of Delaware." Producer el-lh-sh-c

Civilian conservation corps at work—Oregon and Washington. 1R 16-si-loan 35-si-nf-loan 1934 U.S. agric. 634.909

A Forest service film "On various phases of Civilian Conser-vation Corps work." Producer el-Jh-sh-c

Civilian conservation corps at work—Utah and southern Idaho. 1R 16-si-loan 35-si-nf-loan 1934 U.S. agric. 634.909

A Forest service film "On various phases of Civillan Conservation Corps work." Producer el-jh-sh-c

Forests and men. 1R 16-sd-loan 35-sd-nf-loan U.S. agric. 634.909

"Lecture on the work of the Civilian Conservation Corps. Portrays representative activities throughout the country." Producer Jh-sh-c

We can take it. 2R 16-si-loan 35-si-nf-loan 1935 U.S. agric. 634.909 A Forest service film "Shows what the Civilian Conservation Corps is doing in California." Producer

634.92 Forest fires

Enemy of the forest. (Seeing Canada ser.) 12min 16-si-\$12.18 35-si-nf-apply Canadian gov't. 634,92

French edition also

"An educational fire-prevention picture showing the evils of carelessness in the woods, the disastrous results therefrom, and steps taken towards fire-protection in forests. [Useful in nature study, blology, general science and geography [classes]" Am. museum of nat. hist. el-jh-sh

Fighting forest fires. (Seeing Canada ser.) 8min 16-si-\$7.89 35-si-nf-apply Canadian gov't.

"Shows how Canada combats the fire menace in the forests. The look-out tower, the cance, the gasoline speeder, and the aeroplanes all serve to keep the woods green." Massachusetts

Forest fire fighters of the skies. (Seeing Canada ser.) 10min 16-si-\$15.78 35-si-(Seeing nf-apply Canadian gov't.

"This film depicts how one country protects its forests from the ravages of fire by aerial patrol and service. Shows operations of air station; aerial patrol over forest; transportation of fire-fighting apparatus to scenes of conflagrations by air; actual fighting of fires by aerial forest protection forces." Illinois

Good turns for our forests. 1R 16-si-loan 35-si-nf-loan U.S. agric.

A Forest service film
"How the Boy Scouts of America are aiding forest conservation through preventing forest fires. A boy-scout pageant in Washington; miscellaneous scenic views from various national forests; and forest fire scenes." Texas

It might have been you. 1R 16-si-loan 35-si-nf-loan 1933 U.S. agric. 634.92

A Forest service film
"Portrays a disastrous forest fire that
in 7 hours destroyed over 23,000 acres of
timber and 25 ranch houses and rendered
over 100 people homeless—all due to the
carelessness of a ranch hand. Shows what
the Forest Service is doing to prevent
such a catastrophe." California

635 Gardening

Fruits and flowers. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 1926? DeVry 635

By G. Clyde Fisher, of the American museum of natural history
"Intended to carry through the gardening impulses of 'Preparing for a garden' listed below; and 'Growing things' jalso listed below; to a successful and completed garden." Producer

el-Jh Gulde

Growing things. (Nature study 12min 16-si-\$24 35-si-nf-\$80 ser.) 1926? DeVry 635

By G. Clyde Fisher, of the American museum of natural history "Garden cultivation, planting seeds and bulbs. Slow and stop motion photography showing germination of seeds." Massa-chusetts chusetts

el-Ih Gulde

Market gardening. 15min 16-si-\$24 1929 Eastman

Comparison of greenhouse construction and gardening with outdoor gardening in the South. Also the marketing of produce by refrigerator cars

el-jh-sh-c Guide

Preparing for a garden. (Nature study ser.) 24min 16-si-\$48 35-si-nf-\$80 DeVry 635

By G. Ciyde Fisher of the American museum of natural history
Either reel may be obtained separately. Reel 1 shows why a piot should be cleared and how to do it; how to make a compost pile, fertilize, spade; providing of hot beds and shelters. Reel 2 is the planning and planting of the garden and the study of germination planting of germination

635.2 Potatoes

Hidden foes in seed potatoes. 1R 35-si-nf-Ioan 1924 U.S. agric. 635.2

Extension service and Bureau of

An Extension service and Butcat plant industry film "Comparison of the crop yield of a farmer who used selected seed potatoes and one who did not. Experiences on the potato tour, with some degeneration diseases of potatoes, are shown." Colorado

How and why of spuds. 1R 35-si-nf-loan 1920 U.S. agric. 635.2

A Bureau of plant industry film "Potato industry from producer to conmer. Modern methods of commercial roduction. Of general interest." Indiana sumer. Mo Withdrawn.

Jh-sh-c

Potatoes—early and late. 1R 35-si-nf-loan 1922 U.S. agric. 635.2

A Bureau of plant industry film
"How the potato, unknown to the Old
World until the discovery of the western
hemisphere, came to be called 'Irish';
methods of growing and harvesting early
and late potatoes in the Norfolk district
of Virginia and New Jersey." Indiana.

Guide

635.3 Cabbages

Cabbage. (Natural history ser.) 8min 16sd-apply 35-sd-f-apply Gaumont British

"The film falls into two related sections: the first part shows, by fast motion... the germination, growth-characteristic and fertilisation of the wild cabage; the second part shows how the varied forms of cultivated cabbage—Savoys, Brussels sprouts, cauliflowers, sprouting broccoli—are related to the wild form, by illustrating the particular feature of the wild form that is present to an exaggerated degree in the cultivated variety... A very good example of how to deal with familiar gardening knowledge in an interesting manner, while at the same time using everyday facts to bring home the scientific lessons that can be drawn therefrom... Perhaps the most striking portions of the whole film are the sections showing which parts of the wild form have been greatly developed to produce the Brussels sprouts, cauliflower, or the Savoy cabbage... [Useful in] botany or nature study [classes]" British film inst. ish film inst. el-jh-sh-c Guide

635.659 Peanuts, See 634.5

636 Domestic animals

Friends to (Nature study ser.) man. 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

By G. Clyde Fisher, of the American museum of natural history
"The general aim of this lesson is to show the interdependence of man and animals, developing the services that many animals render man, and the obligation of kindness and care this service imposes. The specific aim of this lesson is a study of ruminants, especially sheep, cows, deer, goats and camels; their habits, their economic value and the particular cud-chewing arrangement that causes them to be called ruminants." Iowa univ.

el-jh Guide

s. (Nature study ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry **636**

By G. Clyde Fisher, of the American museum of natural history
"The picture shows kinds and habits of cats and dogs; their use to man as companions, watchers, hunters, life savers, shepherds, draught animals, and ratters, care of pets, training methods; and related wild animals, wolf, fox, lion, tiger, leopard, lynx." Iowa univ.

el-jh Guide

636.1 Horses

Horse and man. 1R 16-si-loan 35-si-nf-loan 1926 U.S. agric. 636.1

A Bureau of animal industry film
An acknowledgment of the horse's part
in the conquest of the New World and in
modern American life. Indian ponies, cow
horses, plow horses, cavalry mounts, race
horses, hunters, truck horses, and bucking bronchos

Horse in motion. 1R 16-si-loan 35-si-nfloan 1922 U.S. agric.

A Bureau of animal industry film
"A study of the various gaits of horses, first at normal speed and then analyzed by means of slow motion photography. This film shows draft horses, pacers, trotters, runners, hunters, cavalry, and police horses." Iowa state college ih-sh-c

636.2 Cattle

Beefsteak bequest. 1R 35-si-nf-loan 1928 U.S. agric. 636.2

A Bureau of animal industry film "Description of the livestock breeding work being done at Sni-a-Bar Experimen-tal Farm, near Kansas City, Mo" Iowa state college

Blood will tell. 1R 35-si-nf-Ioan U.S. agric. 1927 636.2

A Bureau of dairy industry film
"A county anti-scrub bull campaign
paves the way for better sires and prosperity for the dairyman." Iowa state college

sh-c Cattle. 15min 16-si-\$24 1928 Eastman 636.2

"Cowboys herd cattle, live out on the range, shoe their horses, round up the cattle, and 'dip' them to kill parasitic ticks. Alfalfa is cut with a mower. Then it is raked up and stacked. A modern hay-loading machine is seen in operation. Cattle are shown feeding from racks during the winter months. A herd of cattle is driven toward the railway. A stampede occurs at the station, but the cattle are rounded up, driven back to the loading platform, up the runways, and into cars. Typical scenes at a rodeo show the skill of the cowboy." Producer el-jh-sh-c Guide

Cattle ranch. (Ford educational lib.) 16-si-\$15 35-si-nf-\$40 1922 Ford 1R

"In the western cattle country; the cow-boy; life on the range; wild horses; equip-ment of the cowboy; roping; the ranch; beef producers; spring roundup." Iowa state college

Cow business. 2R 16-si-loan 35-si-nf-loan 1926 U.S. agric. 636.2

A Bureau of animal industry film

"Beef-cattle industry in the western United States, contrasting methods of the early cowman with present practice. The cutting gate, branding and vaccinating chute, dipping vat, summer range, winterfeed lots, and horse production on modern ranches." Producer

Dairy cattle and their selection. 15min 16-si-\$24 35-si-nf-\$55 1921 Soc. for 15min visual educ. 636.2

"Shows that among domestic animals the highly-developed dairy cow is the most efficient producer of human food. By close attention to the physical conformation, the higher producing cattle can be selected. The film shows clearly that some cows are more productive than others, even with the same feed and care—that physical conformation is a vital factor in milk production—and shows just how constitution, feeding capacity, formation of milking organs, etc. affect production." Producer jh-sh Guide

Dairy cattle—breeds, types and characteristics. 15min 16-si-\$24 35-si-nf \$55 1922 Soc. for visual educ.

"Showing the five important dairy breeds—Holstein, Jersey, Guernsey, Ayrshire, and Brown Swiss—together with the characteristics of these respective types, their origin and the history of their introduction into the United States. Excellent animated diagrams present the quick and economical effect of a pure-bred bull in improving a herd." Iowa state college

jh-sh Guide

Tale of two bulls. 1R 16-si-loan 35-si-nf-loan 1922 U.S. agric. 636.2

A Bureau of dairy industry film "Animated cartoon showing value of pure-bred sire to the herd." Washington

en the cows come home. IR 16-si-sd-loan 35-si-sd-nf-loan 1932 U.S. agric. When the cows come home. 636.2

A Bureau of dairy industry film with a lecture by Dr. J. C. McDowell
"Discusses the work and progress, of dairy herd improvement, and illustrates studies of factors that influence the production of milk and butter fat per cow." Iowa state college

636.29 CAMELS

Ship of the desert. 8min 16-si-\$12 1933 Eastman 636.29

"The camel is shown at its work in the forbidding desert waste lands. Arabs and their families, camels and young, Bedouin caravans, and scenes at an oasis are included in the film." Producer

636.3 Sheep

Range sheep. 15min 16-si-\$24 1930 Eastman 636.3

Orphan lambs are fed from bottles. Sheep are sheared, marked and counted and put to pasture in the summer. In the fall some are picked for market and the rest of the flock are cared for during the winter el-jh Guide

636.4 Swine

Behind the breakfast plate. 1R 16-si-loan 35-si-nf-loan 1922 U.S. agric. 636.4

A Bureau of animal industry film
"The story of bacon from the pastures of
the corn belt thru the stockyards and the
packing plants to your breakfast plate;
curing of bacon in early colonial homes;
evolution of the hog business." Indiana

How to grow hogs. 2R 35-si-nf-loan U.S. agric. 636.4

A Bureau of animal industry film
Scenes taken on the Experimental farm
of the Bureau of animal industry at Beltsville, Maryland, where the practices were
developed, showing points to be considered
in the selection of hogs for breeding purposes, care of the sow before and after farrowing and the feeding and handling of
pigs up to marketing time

636.5 Poultry

Brooding and rearing chicks. 2R 35-si-nf-loan 1930 U.S. agric. 2R 35-si-nf-

A Bureau of animal industry film Up-to-date procedure in handling chicks in the brood

Care of baby chicks. 2R 35-si-nf-loan 1929 U.S. agric.

A Bureau of animal industry film "Pa and Ma Stubblefield enter the early-chick business. Shows the proper care and feeding of baby chicks." Producer sh-c

Egg marketing industry in the United States. 2R 35-si-nf-loan 1930 U.S.

A Bureau of agricultural economics film "Modern processes in egg raising; weighing; candling; cleaning; packing; preparing for export; frozen eggs; distribution plans." Iowa state college Sh-c

Layers or loafers. 1R 35-si-nf-loan 1930 U.S. agric. 636.5

An Extension service film. Replaces an earlier film "Layers & Liars" "Jim Jones, a farmer, attends a demonstration given by the County Agent on poultry culling. Here he sees the characteristics of good and poor layers. The plan is tried out and it is successful." Iowa state college

Preparation and marketing of dressed poul-try. 2R 16-si-loan 35-si-nf-loan 1932 try. 2R 1 U.S. agric.

A Bureau of agricultural economics film "Methods of grading live poultry; feeding and care of feeding room; picking, precoding, and packing; a synopsis of the Long Island duck industry; cold storage of poultry; Government grades for dressed poultry." Producer

Jh-sh-c

Producing quality chicks. 1R 35-si-nf-loan 1929 U.S. agric. 1R 35-si-nf-loan 636.5

A Bureau of animal industry film
"A baby chick tells its story. Scenes in a modern, up-to-date hatchery; how poor chicks grow up to be poor stock; advantages of standard bred flock; culling flocks; extra fence and double yard system; sanitation." Iowa state college

636.59 Ducks. Turkeys

American eider duck. (Seeing Canada ser.) 5min 16-si-\$8.58 35-si-nf-\$43.20 Cana-636,59 dian gov't.

dian gov t.

Bilingual titles
The American eider duck, how it lives, nests and breeds its young, and also views of how eider-down is collected, cleaned and prepared for use in the manufacture of eider-down quilts and pillows
"[Useful in biology, nature study and domestic science [classes]" Am. museum of nat. hist. el-jh-sh

Turkey business. 1R 35-si-nf-loan U.S. agric. 1930 636.59

A Bureau of animal industry film "Shows where turkeys are raised for market and modern methods of feeding and management." Producer

636.7 Dogs

Work dogs of the North. 15min 16-si-\$15 35-si-f-nf-\$50 1926? Church 636.7

Produced by Captain Jack Robertson
"Shows how dogs . . . have played a
large part in the conquering and building
up of the far north. Some of the sequences
covered are: sled dogs; their treatment;
how they are assisted in breaking trall;
what they are fed; how moccasins protect
their feet; how they help pull boats upstream; how they are 'boarded out' in the
summer; breeds; how they are used as
pack dogs." Wisconsin

636.9 Fur-bearing animals

Fur industry of the United States. 3R 16-si-loan 35-si-nf-loan 1930 U.S. agric. 636.9

A Bureau of biological survey film "Presents a comprehensive survey of the resources of the United States; the different types of fur farms; utilization of fur." Illinois jh-sh-c

Rabbit farming. 2R 16-si-loan 35-si-nf-loan 1932 U.S. agric. 636.9

May also be obtained in a 1R version (16-si-loan 35-si-nf-loan)
"Breeds of domestic rabbits; rabbitries of various types; possibilities of rabbits for meat and fur." Producer

637 Dairy and dairy products

ng the milky way. 25min 16-si-loan 1929 Borden **637** Along

"Showing the production and handling of clean milk. An attractive picture suited for a general audience." N.Y. (State). Dept. of health

A special high school version of this is obtainable under the title: Science, guar-dian of our milk supply (2R 16-si-loan) el

Better way of milking. 10min 16-si-loan 35-si-nf-loan De Laval 637

"Circulation of blood of cow and secretion of milk in udder shown by animated diagrams. Operation and construction of DeLaval Mechanical Milker shown by animated drawings, diagrams and pictures." Missouri

Dairy management. 2R 16-si-apply nf-apply Soc. for visual educ. 2R 16-si-apply 35-si-

"Portrays the dairyman's life; feeding and milking cows; weighing milk; the milk station; the silo; the farm buildings; sanitary stables; water supply; machinery; importance of ralsing young stock, and all that is involved in the important phases of this agricultural pursuit." Texas sh-c—Guide

Good foods-milk. 5min 16-si-\$6 1930 Eastman

"Scenes at a dairy farm: grazing cows, a suckling calf, the farmer milking, and the farm-boy icing milk. A milkman delivers bottled milk to a city home. Kittens drink eagerly from a saucer of milk. A boy enjoys milk with his dinner. Children drink it in a school lunchroom." Producer el-jh Guide

Milk as food. (Ford educational library ser.) 1R 16-si-\$15 35-si-nf-\$40 1922? Ford

"The film is designed to give an intelligent conception of the methods of handling and safeguarding milk from the cow to the consumer. A model dairy is visited and each step in caring for the milk is examined. The value of milk for rapidly building up undernourished children is emphasized." Indiana

Milk for you and me. 4min 35-si-nf-loan 1925 U.S. agric. 637

A Bureau of dairy industry film "For use in Milk-for-Health week cam-paigns. Shows persons of all ages and of all walks of life drinking milk." Producer el-jh-sh

Milky way. 15min 16-si-apply 1935 Dairy-men's league 637

Production of milk in New York state el Guide

Quality milk. 1R 35-si-nf-loan 1930 U.S. 637 agric.

A Bureau of dairy industry film
"Approved methods of dairying for highquality production. Of interest to consumers of milk as well as to dairymen."
Producer sh-c

Wisconsin dairies. 15min 16-si-\$24 1927 637 Eastman

Eastman 637
Production of milk on a small farm is contrasted with production on a large farm. A small herd of Holsteins is driven home by a boy and a dog. The cows are milked and the milk taken to the dairy where it is strained and cooled. Then the milk cans are collected from the farm. In the second unit we see a large herd in summer pasture, and then in a winter barn. Automatic milkers are shown and the milk is prepared for market. Unit 3 shows how cans of milk are emptied into large vats and pasteurized in a modern dairy. Clean bottles are filled and capped by automatic machinery and the milk shipped to the city in refrigerator and tank cars el-jh-sh-c Guide

639 Fisheries

Boats and fishermen of the Arctic and Tropics. (Harvard Pathe ser.) 1R 16-si-\$24 35-si-nf-\$60 1928 Films of commerce

"A contrast of boat types and methods of fishing used by the Central Eskimo and the Fiji Islanders. Excellent views of

Boats and fishermen—Continued the sailing of out-rigger canoes, the use of kayaks and umiaks, and the methods of fish-spearing used by both peoples." Indiana

Should be shown after "Houses of the Arctic and Tropics" [class 728]

Fish and fishing for everybody. (Seeing Canada ser.) 10min 16-si-\$9.81 35-si-(Seeing nf-apply Canadian gov't.

"Government hatchery at Thurlow, Canada; 100 million whitefish in jars; care in stirring and tending until large enough put into lakes; hatching of whitefish.

Minnesota
"¡Useful in biology and nature ¡classes]" Am. museum of nat, hist.

el-Ih-sh

m catch to can. (Seeing Canada ser.) 8min 16-si-\$8.04 35-si-nf-apply Cana-From catch to can. dian gov't.

"Deals with the sardine industry on the east coast of Canada, and shows the entire industrial operations from the time the sardine is caught in the weirs until it reaches the lithographed can." Indiana "Useful in geography, commercial geography, domestic science and nature study (classes)" Am. museum of nat. hist.

el-jh-sh

Harvesting the deep. (Seeing Canada ser.) 5min 16-si-\$7.02 35-si-nf-apply Canadian gov't.

"Depicts Nova Scotia fishermen gathering their harvest of cod, haddock, flounders and other fish off the Cape Sable Banks. [Useful in geography, commercial geography and nature study [classes]" Am. museum of nat. hist.

Inshore fishing on the Atlantic coast. (Seeing Canada ser.) 5min 16-si-\$8.37 35-si-nf-apply Canadian gov't.
639

"A highly interesting marine picture produced in cooperation with the Department of Marine and Fisheries, showing the work of Canada's Atlantic fishermen. [Useful in geography and commercial geography [classes]" Am. museum of nat. hist.

Maintaining the salmon supply. (Seeing Canada ser.) 8min 16-si-\$10.74 35-si-(Seeing nf-apply Canadian gov't.

"One of a series of films describing Canada's fisheries. It depicts the Sockeye Salmon Hatchery operations at Lakelse, Skeena River District, British Columbia."

jh-sh

New England fisheries—cod. 15min 16-si-\$24 1927 Eastman 639

"Outlines the equipping and loading of a schooner for a trip to the Grand Banks—setting trawls and catching fish—unloading—preparing cod for market." Producer el-jh-sh-c Guide

New England fisheries-mackerel. 8min 16-si-\$12 1928 Eastman

"A school of mackerel is sighted, the seine boat puts off, the fish are caught and loaded on the steamer which takes them to shore, where they are prepared for market." Producer

el-Jh-sh Guide

On the Skeena river. (Seeing Canada ser.) 8min 16-si-\$8.40 35-si-nf-apply Canadian gov't.

"A film dealing with the salmon fisheries on the world's greatest salmon stream, showing the methods of catching and the preparation of fish in the canneries. This is one of the series of subjects on Canada's extensive fisherles."

ih-sh

Salmon fishing on the Skeena. (Seeing Canada ser.) 8min 16-si-\$11.28 35-sinf-apply Canadian gov't

"An industrial film depicting different methods used in catching salmon, and disclosing the vastness of this industry in the vicinity of Prince Rupert, B.C." Pro-ducer el-Jh-sh-c

Shark fishing. 15min 16-si-\$24 1931 East-

"Shark-fishing industry . . . The catching of spotted eagle ray, salt-water crawfish, porpoise, barracuda, and small sharks for shark bait. The landing of a tiger shark. Tanning of shark hides and typical shark leather products are shown." Indiana el-jh Guide

Story of a can of salmon. (Seeing Canada ser.) 8min 16-si-\$11.19 35-si-nf-apply Canadian gov't.

Non-technical picture of how salmon is canned in the great canneries of British Columbia, from delivering the catch at the cannery to the completed product "¡Useful in geography, commercial geography and domestic science [classes]" Am. museum of nat. hist.

Trapping tuna. 16-si-\$9.69 (Seeing Canada ser.) 6min 35-si-nf-apply Canadian gov't. 639

"An intensely interesting educational picture treating of a comparatively new industry on the east coast of Canada." Texas

Viking. 6R 16-sd-apply 35-sd-f-nf-apply Edwards

Produced by Newfoundland Labrador film company and is also available in a 4R version (16-sd-apply) 35-sd-f-nf-apply) A dramatic story of the sealing fleet pushing its way thru the frozen North, using dynamite when necessary, and the search for seals off the coast of Labrador. Captain "Boh" Bartlett plays the roll of captain of one of the ships. In a spoken prologue Sir Wilfred Grenfell vouches for the authenticity of this film

640 Home economics

Courage of Kay. 4R 16-sd-\$69 35-sd-f-nf-\$110-\$150 Wadsworth 640

This film was produced in Hollywood by Mason Wadsworth. The script is by Phillip Hurn and the production was supervised by Hobart Brownell. In the cast are Lois Wilson and Lloyd Hughes, supported by other well-known actors "The Courage of Kay' was created to bring more effectively to the women of America a new, broad interest in kitchen modernization in all its aspects, and present the opportunity The National Housing Act offers for immediate action ... Although the main theme of the picture is kitchen modernization with electrical

Courage of Kay-Continued equipment, the products of non-electrical manufacturers, who defrayed the considerable cost of producing the film, are mentioned. In each case, mention of such product is brief and so incorporated in the film as not to interrupt the action or interest." Producer

Home demonstration work in the western states. 2R 16-si-loan 35-si-nf-loan 1934

An Extension service film Shows farm people how to improve their homes and to enjoy them after outlining in a general way the scope of home demonstration work in the West

Home demonstration work-what it is and does, 3R 35-si-sd-nf-loan U.S. agric.

An Extension service film
"The scope of home dowork; representative scenes
parts of the country." Produ demonstration cenes in various Producer

641.5 Cookery

Baking powder in frying batter. (Domestic science ser.) 4min 16-sd-apply 35-sd-f-apply Gaumont British 641.5 Should be useful in domestic science classes as illustrative of methods Guide

Making pork pies. (Domestic science ser.) 7min 16-sd-apply 35-sd-f-apply Gaumont British Should be useful in domestic science classes as illustrative of methods Guide

Making rabbit pies. (Domestic science ser.) 8min 16-sd-apply 35-sd-f-apply Gau-641.5 mont British

Should be useful in domestic science classes as illustrative of methods Guide

644 Fire. See 536

649 Nursing. Care of children

Garden of childhood. 15min 16-si-loan 35-si-nf-loan 1930? John Hancock 649 "Depicting a well-ordered routine of rest, play, sleep, and physical inspection for preschool children. Interesting to any group that is studying any of the various phases of preschool hygiene." Colo-

Henry street visiting nurse service. 2R 16-si-\$35 35-si-f-nf-\$50-\$65 Henry st. 649 Si-\$35 35-si-f-nf-\$50-\$65 Henry st. 649
This might well be considered a vocational film showing as it does many of
the duties and services of the nurses of
the Henry street visiting nurse service.
Shows a nurse caring for an elderly patient. A clinic in Queens is pictured followed by a visit to a barge on the Hudson river, where a colored nurse is seen
instructing a mother in the care of her
baby. The second reel shows a visit to
a new-born baby. Next a 12 year old
child in Manhattan is treated and finally
a baby's bath is demonstrated at a mother's club er's club

Home nursing—routine procedures. 15min 16-si-\$24 1931 Eastman 649

Routine procedures in caring for a convalescent. Taking temperature, counting pulse and respiration. Preparation of patient for breakfast and serving the meal Finally the patient and the room are arranged for the night el-jh-sh Guide

Home nursing—special procedures. 12min 16-si-\$18 1931 Eastman 649

"Some special procedures for relieving specific conditions. Wherever repeated applications are required, the proper lapse of time is indicated. The units are: Cold Compresses; Applying Hot Stupes; Giving a Foot Tub to a Patient in Bed; Flaxseed Poultice; Inhalations." Producer el-jh-sh Guide

Home nursing—the bed bath. 8min 16-si-\$12 1931 Eastman 649

"Bed bath. Checking the room tempera-ture, preparing the bed, preparing the pa-tient, giving the bath, making the bed without removing the patient from it." Ohio el-jh-sh Guide

Life of a healthy child. 15min 16-si-\$28 649

"Activities in a normal child's life, stressing periodical medical and dental examinations, correct posture, proper food, right eating, plenty of water, cleanliness, wholesome exercise and carefree play, carefulness, safety first, approved method of caring for the teeth and mouth, fresh air day and night, sunshine, abundant sleep, right thinking, and a contented mind. Approved and used by the Amercan Dental Association." Producer

650 Business

652 Typewriting

Teaching beginners how to typewrite. 17min 16-si-\$30 1935 Hudson 652 652

"This film clearly illustrates the fundamentals of correct typewriting technique. Generous use of the close-up and slow-motion gives every student in the class a definite impression of proper position and action." Utah Guide

653 Shorthand

Correct shorthand technique. 20min 16-si-\$30 1934 Hudson 653

Companion film to "Teaching beginners how to typewrite", class 652
"Designed to be of greatest value during the first weeks of shorthand practice. By its use, the goal of correct writing technique is presented to the class in a form so simple that the acquiring of the necessary smooth, easy style becomes a matter of lmitation." Kansas
Guide Guide

655 Printing

Books—from manuscript to classroom. 17min 16-si-sd-loan 1935 Winston 655 "An entire new picture, new characters, new scenes, more close-ups, new story, and a new dress for the new Miss Ella Men-try." Producer Books-from manuscript to classroom--Continued

"The motion picture story of a text-book; the typesetting, presses, trimming and all other processes in making a book are shown." Colorado

Making a book. 15min 16-si-\$24 1931 655 Eastman

"The manufacture of paper, editing of manuscripts, hand and machine composition, electrotyping of the text, and the making of halftone illustrations. Sheets of paper are printed, folded, cut, assembled, sewed into book form, trimmed, and bound." Producer jh-sh Guide

658 Business methods

Executive. (Vocational guidance ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 658 DeVrv

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university
"What a modern executive does in his position, during his leisure time; the traits of character, attitudes, and ideals a successful executive must have; type of knowledge necessary and how it may be obtained." Texas

The Guide jh-sh Guide

esman. (Vocational guidance ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university
"His daily occupation, the principles of salesmanship, magnitude of sales effort and its relationship to production and basic costs of a product, type of personality and preparation needed to make a good salesman." Texas Texas jh-sh Guide man."

.660 CHEMICAL TECHNOLOGY

For the films on chemistry as a science, see class 540

662 Fuels. Explosives

662.2 Explosives

Explosives engineer. 30min 16-si-loan 35si-nf-loan Hercules 662.2

Also obtainable in another version (15 min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines)
"The research that is being done on explosives; various tests; how the explosives engineer has assisted in industry." Iowa state college sh-c

Modern Hercules. 15min 16-si-loan 35-sinf-loan Hercules 662.2

The many operations in making dynamite, from the mixing of the nitro-glycerin to the packing of the finished cartridges in the cases and loading them on the rall-

Story of dynamite. 30min 35-si-nf-loan prior 1927 Bur. of mines 662.2 Made in cooperation with E. I. du Pont

de Nemours & company
"A good picture of the dynamite industry showing that dynamite is an eco-

nomic factor in mining, quarrying, ditch digging, razing buildings, breaking snow and ice jams." Texas sh-trade

662.6 Coal

See Coal mining, 622.33. For the sake of keeping all material about coal together, the number 662.6 has not been used

663 Beverages

30min 16-si-loan 35-si-nf-Behind the cup. 30mir loan 1933 Church

The story of Hills bros. coffee
The complete story of coffee from the
planting of the trees to the cup. Most of
the filming was done in Guatemaia, Centrai America jh

15min 16-si-\$24 1931 Eastman 663

As typical of the industry everywhere we see here the story of coffee grown in South America, including views of Colom-bia. Treats coffee growing, hulling and cleaning, shipping coffee, preparing for market el-jh Guide

Magic of the mountains. 1R 16-si-loan 35-YMCA si-nf-loan

Produced by Ganz for the Great Atlantic & Pacific tea company
"A travelogue throughout coffee producing regions of South America, illustrating the cultivating, milling and exporting of this commodity." Distributor
el-jh-sh-c

664 Foods

664.1 Sugar

Beet and cane sugar. 15min 16-si-\$24 1930 Eastman

"Cutting cane, thinning sugar beets, bagging sugar, animated map locating sugar areas. Sugar beets, animated map locating beet areas, planting sugar beets, locating beet areas, planting sugar beets, thinning, harvesting, washing, slicing, cooking, diffusion, drying pulp, refining juice. Cane sugar, animated map locating cane areas, cutting cane, shipping, crushing, filtering juice, evaporating, separating sugar from liquid, drying sugar, storing, molding cubes." Ohio el-jh-sh-c Guide

Harvest of the sugar maple tree. (Seeing Canada ser.) 6min 16-si-\$10.50 35-sinf-apply Canadian gov't.

nf-apply Canadian gov't. 664.1

"Life in the sugar bush, demonstrating the old and new methods of tapping maple trees, of gathering sap, and transporting it to the kettles. It shows the boiling in modern evaporators, the bottling and canning of the maple syrup in the factory, and finally, an old-fashioned sugar bush party." Producer

"[Useful in] geography and nature study [classes]" Am. museum of nat. hist.

Jh

Island of sugar. 1R 16-si-loan 35-si-f-nf-loan General electric 664.1

"Shows the world's greatest achievement in the cane sugar industry. We see 110,000 acres of dense forest transformed into a modern plantation, and the largest sugar

Island of sugar-Continued and of sugar—Continued
mill in the world built and put in operation
in ten months. Everyone should know how
cane sugar is produced and this film tells
the story. It also shows many beautiful
scenes in and around Havana, including
the home and gardens of the President
of the Republic. [Useful in geography and
commercial geography [classes]." Am. museum of nat. hist.
el-jh-sh

Maple syrup and sugar. 12min 16-si-\$18 1930 Eastman 664.1

Comparison of methods used in a small and large camp for tree tapping, collecting and boiling of sap, Canning and bottling of syrup and making of maple sugar el-jh Guide

Sugar trail. 1R 16-si-loan 35-si-f-nf-loan General electric

"Illustrates methods employed in the sugar industry, beginning with the cultivation of the wild beet. Harvesting and manufacturing processes are exemplified, and animated statistics show the extent of the world's consumption of sugar." Colorado rado

Vermont's maple industry. 30min 16-si-loan 1935 YMCA 664.1

Produced by H. H. Chadwick
This film which shows the making of
maple sugar and syrup is sponsored by the
Department of conservation and development of the State of Vermont el-Jh-sh

664.2 Tapioca

15min 16-si-loan Across the seven seas. 15min 35-si-nf-loan 1935 YMCA

Produced by A. Legget and sponsored by General foods sales company. First filmed 1929, re-edited 1935

"Story of tapioca; the Island of Java; scenes on the Island; ancient relics; Cassava root; processes in making tapioca." lowa state college

664.4 Salt

Common salt. 15min 16-si-\$24 1930 East-664.4

"Nature and action of salt. Methods used in extracting, purifying, drying and bagging surface and rock salt deposits."
Utah el-jh Guide

Pillars of salt. 1R 16-si-loan 35-si-f-nf-loan General electric 664.4

"How salt is refined and prepared for market at one of the largest salt mines in the United States. Many of the scenes were taken 1000 feet underground." Pro-ducer jh-sh

664.6 Baking powder

Baking powder. (Domestic science ser.) 9min 16-sd-apply 35-sd-f-apply Gaumont British 664.6

Should be of special interest to domestic science classes Guide

664.8 Preservation of fruits and vegetables

Capping nature's finest; or Up to date home canning methods. 20min 16-si-loan 1932 Kerr 664.8

Produced by Charles High

"A brief history of the canning process. Shows steps in canning by each of the methods: open kettle, cold pack, and oven canning." Kansas

664.9 Preservation of meat

Honor of the little purple stamp. 1R 35-si-nf-loan 1921 U.S. agric. 664.9 A Bureau of animal industry film "Federal meat inspection, details and significance." Iowa state college sh-c

Lamb and mutton for home use. 1R 35-si-nf-loan 1920 U.S. agric. 664.9

A Bureau of animal industry film "Dressing and preparing lamb and mutton for use on the farm. Close-ups of the various operations from the skinning of the animal to the final preparation of the meat for use. Of interest to sheep-raisers and housekeepers." Indiana

Meat packing. 15min 16-si-\$24 1929 East-

"The complete story of the industry from the time the animal leaves the western plains until it has been made into food products. How cold storage and canning have been responsible for the rapid growth of this great American industry." Indiana el-jh-sh Guide

665 Oils. Gases

665.3 Turpentine

Doings of Turp and Tine. 1R 16-si-loan 35-si-nf-loan Hercules 665.3

"Animated comedy showing production of gum and Hercules steam-distilled wood turpentine." Texas el

665.5 Petroleum

Evolution of the oil industry. 45min 16-si-loan 35-si-nf-loan Bur. of mines

665.5

Made in cooperation with the Sinclair refining company
"Depicts the development of the petroleum industry from the earliest times to the present and emphasizes the importance of petroleum to modern civilization. Some of the scenes include construction of temples by the disciples of Zoroaster over petroleum seepages where the sacred flames were worshipped; burning of petroleum in the sacrificial rites of the Central American Aztecs; use of petroleum for medicinal purposes by the American Indians; pioneer days of the American oil industry showing production and equipment; drilling and operation of modern oil wells; construction of pipe-lines and refineries; transportation by railway tank car and tank ship." Weaver
"(Useful in history, geography, physiography and commercial geography classes)" Am. museum of nat. hist.

el-jh-sh

Petroleum, the liquid mineral. 60min 16si-loan 35-si-nf-loan prior 1927 Bur. 665.5 of mines

Made in cooperation with the Pure oil

Made in cooperation with the rule of company
"This film shows the production and refining of oil and the distribution and use of refined petroleum products. Glimpses of the Canyon of the Colorado River are shown, scenes showing the use of the seismograph and the torsion balance, drilling of a modern oil well, views of the most notable oil fields, pumping of a group of wells, transportation of crude oil through pipe lines, the recovery of gasoline from natural gas, and a panorama of the flow of vital petroleum to distribution centers, [Useful in] chemistry, general science and commercial geography [classes]" Am. museum of nat. hist.

el-jh-sh

Producing crude oil. 15min 16-si-\$24 1930 Eastman

"Classes in geography, science, and economics will gain much valuable information from this interesting picture. It is divided into the following units: surveying in the mid-continent oil fields, erection of a derrick, rotary and cable-tool methods of drilling, preparing for the flow, the strike, laying of pipe lines, and the location of our principal oil fields." Iowa univ.

el-Jh Guide

Refining crude oil. 15min 16-si-\$24 1930 Eastman

A series of demonstrations, animations, A series of demonstrations, annations, and photographs, shows the steps in distilling which are concerned with gasoline, kerosene, oil distillate, paraffin wax, fuel oil, lubricating oil, asphalt, and "cracking." Common uses of many of the products

jh-sh Guide

Refining the crude. 60min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the Gulf refin-

Made in cooperation with the Gulf refining company

"Reel I shows intricacy and magnitude of modern oil refinery; the many products obtained by refining petroleum; and uses of some of these products in everyday life. Crude petroleum is traced from oil well to refinery and through process of straight distillation. Reel 2 pictures cracking process; refining of lubricating fractions; manufacture of chemicals used in refining process; chemical treatment of raw gasoline; and types of gasoline storage tanks. Reel 3 shows separation of wax from paraffin-base crudes; preparation of wax for market; and refining of lubricating distillate. Reel 4 depicts laboratory tests employed to control intricate refining process; illustrates safety, first-aid, and fire-fighting methods and equipment; and shows building of refinery apparatus and shipment of refinery products to consumer." Producer "¡Useful in] chemistry, geography and commercial geography [classes]" Am. museum of nat. hist.

Story of gasoline. 30min 16-si-loan 35 nf-loan prior 1927 Bur. of mines 30min 16-si-loan 35-si-665.5

Made in cooperation with the Standard

Made in cooperation with the Standard oil company of Indiana
Story of the gasoline industry from the production of the crude oil to the finished product. Animated photography is used to show manufacturing methods. Illustrates

uses of naphtha, kerosene, gas oil, lubricating oils, fixed gas and coke
"[Useful in] commercial geography and chemistry [classes]" Am. museum of nat. hist. el-jh-sh

Story of lubricating oil. 30min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the Standard oil company of Indiana "Reel 1 stresses importance of lubrication to machinery; shows stills used in separating various products from crude oil; explains theory of operation of still by animated drawings; pictures treatment of crude lubricating oil to remove impurities; shows removal of paraffin wax, which would be a harmful constituent; and illustrates separation of oil into various grades in reducing stills, followed by filtration. Reel 2 follows bottom stock remaining after distillation of crude oil through treatment with chemicals to take out impurities, separation of petrolatum by centrifuges and blending of various grades and types of oils to make lubricants for every purpose; also shows flash and viscosity tests in laboratory and application of correct lubricants to automobile, airplane, and Diesel engines." Producer "[Useful in] geography, physiography, chemistry and commercial geography [classes]" Am. museum of nat. hist.

el-ih-sh

Story of petroleum. 120min 35-si-nf-loan prior 1927 Bur. of mines 665.5

Made in cooperation with the American

Made in cooperation with the American petroleum institute
Shows the locating of oil-bearing formations; use of seismograph and of torsion balance, drilling with cable tools; setting up of wells; operation of pumping wells; pipe line systems; crude oil in refineries; the refining processes; and views of tankers, barges, tank cars and other carriers

sh-trade

Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria. 30min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 665.5

Made in cooperation with the American

Made in Cooperation with the American oil company
"Excellent scenic film." Kansas
"[Useful inj geography, physiography, and commercial geography [classes]" Am. museum of nat. hist.

el-ih-sh

Through oil lands of Europe and Africa-Italy, Hungary, the Danube, and Rumania. 30min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 665.5

Made in cooperation with the American

Made in cooperation with the American oil company
"This film includes a panorama of Naples, Mount Vesuvius, oil fields of Villeja, with 200 wells, south of River Po; views of the market place of Mezokovesa, Hungary, with people in fête-day costumes, floating mills in Danube River below Budapest with machinery driven by current, and transportation of oil from Rumanian fields on the Danube by barge. A Rumanian village wedding, the making of mats from reeds, and the transporting of supplies by bullock wagons to the oil fields are also included. [Useful in geography, physlography, and commercial geography [classes]" Am. museum of nat. hist.

ei-jh-sh

ei-jh-sh

Through oil lands of Europe and Africa—Poland, Greece, and Egypt. 45min 16-si-loan 35-si-nf-loan prior 1927 Bur. 665.5

Made in cooperation with the American

Made in cooperation with the American oil company
St Jacob's well, one of the oldest in the world and over 1,000 feet deep, is shown. Scenes of the Acropolis, Athens; views of Egypt showing the gates of Cairo; camel trains starting across the desert; pyramids, Sphinx, and Egyptian wedding procession; the entrance to the tomb of King Tutankh-amen. Tankers laden with oil produced near the Red Sea and refined at Suez "[Useful in history, geography, physiography, and commercial geography [classes]" Am. museum of nat. hist.

el-jh-sh

Through the oil fields of Mexico. 45min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 665.5

Made in cooperation with the American

Made in cooperation with the American oil company
"General views around the oil fields of Mexico, 'spouters,' gas-absorption plants, pump stations, oil shipment, scenic surroundings, including some of the famous mountains of Mexico, street scenes and native life. Excellent photography." Colorado "¡Useful in geography, physiography, and commercial geography [classes]" Am. museum of nat. hist.

ih-sh

jh-sh

666 Ceramics

666.1 Glass

From desert sands to sparkling glass creations. 25min 16-si-loan 1932 Kerr 656.1

Produced by Charles High

"Interesting processes in the manufacture of glass jars from the raw sand of the desert to the finished product. The film shows the mixing, heating, and 'blowing' of the raw material into glass jars and subsequent capping, sealing, packing and transportation of the jars to warehouses." Indiana jh-sh-c

Glass blowing technique. 15min 16-si-\$24 1929 Eastman 666.1

"This is available in 2 parts of ½R ea (16-si-\$12 ea) or as the complete unit given

above "Part gives correct procedure manipulations for elementary glass blowing with Pyrex glass. Part II shows the technique employed in joining tubes of unequal diameters, and the method of forming bulbs." Producer jh-sh Guide

Glass blowing, with specimens of ancient and mediaeval blown glass. 30min 16-si-\$60 35-si-nf-\$120 1932 Metropolitan museum

"The various operations in the blowing, cutting, polishing, and etching of modern objects of art in glass and selected specimens of ancient and mediaeval glass from the Museum's collection." Producer el-jh-sh-c

Glass magic. 45min 16-si-loan 35-si-nf-loan 1930 Bausch & Lomb 666.1

Produced by Loucks and Norling studios "Step-by-step explanation of the process of manufacturing optical glass and lenses in the factories of one of America's fore-

most distributors of photographic and projection equipment, beginning with the making of the glass." Colorado Guide

Romance of glass. nf-loan YMCA 18min 16-si-loan 35-si-666.1

Taken in the Ball brothers plants at Muncie, Indiana "The picture begins with a short sketch of the first production of glass by the Phoenicians. Views in a modern glass factory follow: tory follow, showing the manufacture fruit jars." Kansas

666.4 Clay

Fire-clay refractories. 45min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the Laclede-Christy clay products company
"Shows mines where fire-clay is obtained, sorting of clay, testing in furnace, forming of bricks and molding of fire-clay into various forms by hand; the use of fire-clay in the glass industry, driving kilns in the lumbering industry, enameling industry, heat treating and forge furnaces."

Texas sh-c

668.1 Soap

Soap. 15min 16-si-\$24 1929 Eastman

668.1

"Prepared for use in general science, household chemistry classes, this film is designed to acquaint the child with the underlying principle of soap manufacture, the main differences between 'hard' and 'soft' waters, and the cleansing action of soap in each. Home-made soap. Factorymade soap. How soap works." Indiana el-jh-sh-c Guide

669 Metallurgy

669.1 Iron and steel

Heat treatment of steel. 30min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the Hupp mo-

Made in cooperation with the Hupp motor car corporation
"Shows blacksmith at work in old-time shop and present method of heat treatment in furnaces where temperature is regulated automatically and checked by pyrometers and signal lights. Depicts forging of front axles; analyzing of steel to determine carbon content; bending test of untreated and treated axles; forging of steering knuckles with method of hardening and tempering; case-hardening, cyaniding, and testing various parts." Weaver jh-sh-c

Iron ore to pig iron. 15min 16-si-\$24 1927 Eastman

"Outlines the mining of ore in the Mesabi range—its transportation to Duluth and through the 'Soo' canal to Gary, Indiana, where it is smelted and cast into pigs." Producer "In conjunction with the film, 'Pig Iron to Steel' (listed below) this reel gives a clear picture of the steel industry, the processes involved, and the importance of iron and steel in our everyday life." Wisconsin el-jh-sh-c Guide

1927 Pig iron to steel. 15min 16-si-\$24 Eastman 669.1

"Pig iron, melting pigs, casting ladels, blooming mill, taking moulds to stripper, making a billet, ingot passes through blooming mill rolls. Finishing mill, heating billets, rolling mill, shearer, rolling Tobeams' and rails." Ohlo "This film, with the film Tron Ore to Pig Iron illsted above; traces the progress of the ore through the mining process to the finished product." Wisconsin el-jh-sh-c Guide

Story of iron. 75min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 669.1

Made in cooperation with the Bethlehem steel corporation, the Youngstown sheet & tube company, and Pickands, Mather & company

company

Here we see early mining processes in

New York; underground mining, use of
top-slicing method; surface caving caused
by top-slicing, sublevel caving method,
room-and-pillar method, open-stope mining; stock-piling, crushing, treatment of
crushed ore and shipping; reloading for
inland shipping, blast furnaces and casting of pig iron

sh-trade sh-trade

Story of steel. 90min 16-si-loan 35-si-nf-loan prior 1927 U.S. steel 669.1

loan prior 1927 U.S. steel 669.1
Contents: Reels 1-2 Basic processes of making steel; Reel 3 Manufacture of rails, plates, and other hot rolled products; Reel 4 Manufacture of wire products; Reel 5 Manufacture of pipe; Reel 6 Manufacture of sheet steel and tin plate
"While this is a six reel picture the reels are distributed separately if desired. Reels 1 and 2 may be used with any one of reels 3, 4, 5, or 6 to give a complete three-reel picture on the manufacture of a particular product. These reels contain animation of various processes and include many phases of the human side of steel-making. The several distributors have varying numeral designations for these reels. It will therefore be necessary to specify names of reels desired." Producer

669.2 Gold and silver

Gold. 15min 16-si-\$24 1930 Eastman

"Hydraulic mining in Alaska, using sluice box, dredging, quartz mining, entering mine, drilling, stamping mill, tube mills. Shimmey tables, concentrating tables, mercury separation, cyanide vats, precipitated gold, smelting, gold bullion. Gold dental crown, gold wire, jewelry, gold leaf, gold leaf signs. Making gold coins, stamping blanks, imprinting, weighting, inspection." Ohio "Classes in geography, general science, and geology will find much valuable material in this film." Indiana el-jh Guide 669.2

Silver. 15min 16-si-\$24 1930 Eastman

"Stresses important uses of the metal which today plays a leading part in many industrial activities. Shows the preparation of sterling silver and, using the manufacture of a sterling silver spoon and a tray as an illustration, shows the processes involved in the production of flat-ware and hollow-ware. The process of using silver plating for mirrors and photographic emulsions are shown. The film has been divided into the following units: sterling silver, silverware and mirrors, silver in photography." Iowa univ. jh-sh Guide

669.3 Copper

From mine to consumer. 30min 16-si-loan 35-si-nf-loan prior 1927 Am. brass 669.3

Produced by Pathescope company America

America

Part one shows how the copper-bearing rock is mined, and transported to the smelters. Here the ore is crushed, and most of the waste material eliminated. It then passes successively through roasters, reverbatory furnaces and converters, and the resulting "blister copper" is cast into plates, known as anodes, for electrolytic refining. In part two we learn how copper and brass sheets and strips are made. We observe copper cakes being rolled under heavy pressure, and the annealing necessary to insure the correct temper in the metal. Lastly the finishing, trimming and inspection of the sheet metal is shown

Also available in a 5 reel film (35-sinf-loan Am. brass). Reel 1, Copper mining and smelting; Reel 2, Electrolytic copper refining and brass casting; Reel 3, Manufacturing sheets, rolls and strips; Seamless tubes; Reel 4. How copper rods and wire are made; Reel 5, Possibilities of copper and brass

Long drawn out. 1R 16-si-apply 35-si-f-nf-loan Western electric 669.3

"Little billets of copper are drawn and drawn until they make many miles of wire finer than the human hair. The wire of copper eventually becomes a voice highway as you face the interesting process in the wire mills." Texas

Manufacture of Anaconda sheet copper. 30min 16-si-loan 35-si-nf-loan prior Am. brass

"This film shows the story of copper from mine to consumer: scenes in mine; crushing, screening; smelting; forming of copper; making of copper into anodes and refining by electrolysis; rolling; casting into bars." Illinois

el-jh-sh-c

Mining and smelting of copper. 15min 16-si-\$24 1930 Eastman 669.3

"Open pit mine, panorama of Bingham mine, hydraulic plant, map locating copper areas, Bear River hydroelectric plant, concentrators, train of ore. Grinding ore, washing powder ore, gravity canal, oil flotation cells, filters. Mixing flux and concentrates, heating ore, reverboratory furnace, separating copper, silver and gold, casting ingots." Ohio

el-jh Guide

Story of copper milling. 15min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the Copper & brass research association

brass research association

"This film of the story of copper milling shows views of mills and smelters in Nevada, Arizona, and Utah, rotary car dumper, crushing of ore and separating tables, leaching of oxidized ores, precipitation, stripping sheets of precipitated copper from lead cathodes, dredging of old tallings of concentration mills from bottom of lake, and retreating by ammonia leaching. ¡Useful inj geography, physiography, chemistry and commercial geography ¡classes]" Am. museum of nat. hlst.

sh-trade

sh-trade

Story of copper mining. 75min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the Copper & brass research association. Shows prospecting and staking out of claims; openit mining in Nevada and Arizona, shrinkage stoping at Kennecott, Alaska; glacier mining, use of drag line, views of Copper river and its valley and of Miles glacier, caving system of mining in Arizona; mining of native ore in Michigan, and covers horizontal cut-and-fill method in Arizona as well as use of wet drilling in Montana; rill stoping, shaft station, use of pumps, drills, etc. Concludes with scenes pertaining to health, sanitation and social welfare sh-trade sh-trade

Story of copper refining. 15min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the Copper & brass research association

"An instructive film showing the unloading of blister copper from a boat and cars at Baltimore, Md. refinery, charging into refining furnace with copper scrap, raking slags off surfaces, tapping of the furnace, casting into anodes, and cooling. Other scenes include further refining of anodes by electrolysis, placing anodes into empty tanks, and insertion of sheets of copper between them to act as cathodes. [Useful in] geography, physiography, chemistry, and commercial geography [classes]" Am. museum of nat. hist.

sh-trade

sh-trade

Story of copper smelting. 15min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 669.3

Made in cooperation with the Copper &

Made in cooperation with the Copper & brass association
"An interesting picture showing general views of smelters in Nevada, Utah, Arizona, and Montana, unloading of coarse ore in blast furnaces and pure ore and concentrates in reverberatory furnaces, charging convertors, pouring slag, pouring blister copper, casting anodes, and cooling and shipping of castings, [Useful in] geography, physiography, chemistry, and commercial geography [classes]" Am. museum of nat. hist. sh-trade

Story of the fabrication of copper. 15min 16-si-loan 30 min 35-si-nf-loan 1927 Bur. of mines prior 669.3

Made in cooperation with Revere copper

Made in cooperation with Revere copper & brass, inc.

"Reel 1 shows loading of copper cakes onto platform in front of ram which pushes them into and through heating furnace to get them red hot, takes them from furnace, and places them on breaking-down rolls where they are reduced to slabs about one fourth inch thick; shearing into definite sizes and lengths; hot rolling into thin sheets; annealing, pickling, washing, and drying; cold rolling for proper hardness; polishing and bundling; smoothing and leveling of sheets; trimming to proper size; and buffing. Reel 2 shows rolling of copper rods and drawing wire, heating of 250-pound bars, conveying to first rolls, and 'catcher' grabbing rods as they emerge from one roll at speed of more than 1,000 feet per minute and looping them to next pass; method of cooling, coiling, and drawing through series of dies for desired gage; making of trolley wire; winding wire onto drums; twisting into cables by entering machine as separate strands and coming out on other side as heavy wire." Producer

669.4 Lead

Lead. 15min 16-si-\$24 1930 Eastman 669.4

"The way in which the ore is mined and smelted—some of the multiple uses of the metal in industry—and the process of making white lead, by the famous Dutch Boy method, are shown." Producer el-jh Guide

Story of lead mining and milling. 45min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines 669.4

Made in cooperation with the St Joseph

Made in cooperation with the St Joseph lead company
"Reel 1.—Pictures relative production of lead by countries and states; prospecting, driving of tunnels, mining and loading of ore. Reel 2.—Shows hauling of mine cars to shaft by electric locomotive; emptying car by rotary dumps; hoisting ore to mill; crushing ore; and concentration on tables. Reel 3.—Depicts concentrating tables; dewatering and stacking of tailings; regrinding of middlings; filtering and drying; and community scenes." Illinois sh-trade

Story of lead smelting. 30min 16-si-loan 35-si-nf-loan prior 1927 Bur. of mines

Made in cooperation with the St Joseph

Made in cooperation with the St Joseph lead company
"Reel 1: smelter at Herculaneum, Mo.; mixing of concentrates and fluxes; sintering (roasting); charging of blast furnace; and haulage of crude lead to refinery. Reel 2; smelter of Federal Lead Co., at Alton, Ill.; roasting of concentrates in pots to drive off sulphur; removal of impurities from crude lead; running refined lead into molds; and transportation by electric buggies to storage piles or railroad cars. Views of change houses and baths provided by company to conserve health of workers." Texas

669.6 Tin

Tin. 15min 16-si-\$24 1930 Eastman 669.6 "The film traces the flow of tin from great mines in the Federated Malay States to large factories in the United States, and may be used as a striking example of the interdependence of mankind. Mining tin ore. Animations and scenes picture the making of tin plate. Various uses of tin." Indiana el-jh-sh-c Guide

669.7 Other metals

Story of monel metal. 3 35-si-nf-loan Rothaker 30min 16-si-loan 669.7

Produced for the International nickel company, inc. This is sometimes titled simply Monel metal

Also available in a 1R version (9min 35-sd-f-nf-loan 1932)

"Composition of monel metal; its nature and manufacture. Largest non-ferrous elec-tric furnace in the world. Uses of the tric furnace in th metal." California

Story of nickel. 30min 16-si-loan 35-si-nf-loan 1935 Bur. of mines 669.7

Produced by Douglas D. Rothacker and is sometimes titled simply Nickel "Reel 1 depicts the mining of the ore and the various processes involved in securing the nickel from it. The flotation process

Story of nickel—Continued is depleted. Reel 2 shows the importance of nickel to alloys and the many uses of nickel in the home and in the industrial world." Illinois

670 Manufactures

1R 16-si-loan 35-si-f-nf-loan Conductor. General electric

Transformation of raw copper from the Rocky Mountains, cotton from the South, rubber from Brazil, and silk from Japan into lamp cord

sh-trade

671W Welding

Electric needle. 1R 16-si-loan 35-si-f-nfloan General electric

"Illustrates electric arc welding and the installation of a pipe line made of half-inch boiler plate. Lines such as these are used to convey oil, gas, and steam, and also water in large municipal systems." Kansas

Hottest flame in the world. 4R 16-sd-loan 35-sd-f-nf-loan General electric 671W

"Dr. Irving Langmuir recounts work with "Dr. Irving Langmulr recounts work with vacuum tubes and hydrogen which led to development of atomic-hydrogen welding process. Molecular hydrogen, introduced into an electric arc becomes broken up into hydrogen atoms. When this atomic hydrogen passes beyond the action of the arc, the atoms reunite with violence and liberate great amounts of heat, thus producing the hottest known flame." California

674 Lumber. Forest products

Cedar camps in cloudland. 1R 16-si-apply 35-si-f-nf-loan Western electric 674

"Scenic survey of the Pole-making in-dustry amid the mountains of the north Pacific coast." Producer

Conquest of the forest. 1R 16-si-loan 35-si-f-nf-loan General electric 674 674

Scenes in the logging country of the Northwest. Gives a comprehensive picture of the lumber industry, its magnitude, and modern methods of operation "(Useful in geography and commercial geography [classes]" Am. museum of nat. hist.

Conquest of the forest. (Seeing Canada ser.) 10min 16-si-\$9.75 35-si-nf-apply Canadian gov't.

"Logging operations in the vast timber tracts of northern Ontario and Quebec. [Useful in geography, commercial geography, nature study and biology [classes]" Am. museum of nat. hist.

Drive is on! (Seeing Canada ser.) 10min 16-si-\$9.03 35-si-nf-apply Canadian gov't. 674

"Spring log-drive on Canadian rivers. The deviltry of roaring swollen rivers, huge jams, hairbreadth escapes from icy duckings—the log-drive is a thrilling adventure." Utah Jh

Far western cedar trails. 1R 16-si-apply 35-si-f-nf-loan Western electric 674

"An interesting chapter of the cedar telephone pole industry; processes; lowa state college."

Felling forest giants. 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce

Produced by Pathe
"Gives a detailed story of the lumber industry in the mountains of North Carolina and in the great forests of the Northwest. Logs are taken from the forests to the mill by mule and oxen teams by skidway and by floating them down stream. Scenes in temporary and permanent lumber mills complete this . . . subject." Distributor tributor

Land of the white cedar. 1R 16-si-apply 35-si-f-nf-loan Western electric 674 Selecting cedars for telephone poles and life among the cedar-cutters of the Canadian border of Minnesota Jh-sh

Lumbering in British Columbia. (Seeing Canada ser.) 6min 16-si-\$9.15 35-si-nf-(Seeing Canadian gov't.

"In this educational film, replete with scenic beauties, are shown in graphic manner the lumbering operations, from the felling of the giant trees to the export shipping of the finished product. [Useful in geography and commercial geography [classes]" Am. museum of nat. hist. el-ih-sh

Lumbering in the Pacific Northwest. 15min 16-si-\$24 1930 Eastman 674

"Laying a railroad—dragging logs to it by steel cables—sawing the logs into lum-ber—drying in tunnel kilns—planing and subsequent sorting and shipping are all in-cluded." Producer el-jh-sh-c Guide

Pillars of the sky. 1R 16-si-apply 35-si-f-nf-loan Western electric 674

"Gathering and milling the raw product for crossarms and conduits." Producer

Wood wisdom. 1R 16-si-loan 35-si-nf-loan 1925 U.S. agric. 674

A Forest service film
"The structure of various kinds of wood.
Different qualities of hardwood and softwood; cell building in growing trees; development of decay through growth of funging the pores of the wood." Utah

675 Leather. Shoemaking

Leather. 15min 16-si-\$24 1929 Eastman 675

Gives sources of various leathers. Shows tanning methods and constrasts making shoes by hand with their manufacture by modern machinery el-jh Guide

Romance of shoemaking. 2R 16-si-loan 35-675 si-nf-loan Melville

"The preparation of leather, and its utilization in the manufacture of shoes." Kansas

Story of leather. 31min 16-si-loan 35-si-nf-loan 1929? Tanners' council 675

inf-loan 1929? Tanners' council 675
"The opening scene begins with a dusty, spirited plains round-up of cattle. In the following sequences the hides of these animals are traced through leather making processes into shoes, bags, clothing, upholstery and other products. There are shown the methods and places where hides are taken off, how tanners get them, how they are cured and preserved in the long tanning process. Modern industrial technique is shown and contrasted with stages of manufacture where skilled handicraft is indispensable. World maps with animated titles and diagrams indicate the interrelation of productive factors in the modern world by showing the sources of all the raw materials used in tanning Finally, the various methods used to manufacture leather for specific purposes are shown." Producer

676 Paper

From tree to newspaper. 15min 16-si-\$24 1928 Eastman 676

"Includes the steps involved in felling a tree, getting out logs, floating them to market, making wood pulp, and making paper ready for printing in a newspaper plant." Producer el-jh-sh-c

ring. (Ford educational library 1R 16-si-\$15 35-si-nf-\$40 1923 Paper-making. ser.) Ford

A comprehensive study of paper making, showing the various processes in the making from wood-pulp and from rags jh-sh

World of paper. 2R 16-s loan General electric 2R 16-si-loan 35-si-f-nf-

"Embraces in a brief pictorial history the arts of writing, printing and paper making. It shows primitive races cutting records on stone. Egyptians preparing papyrus, and Chinese making the first paper ever used by man. Then we are shown a large modern paper mill with its elaborate machinery and immense production. [Useful in history, general science, geography and commercial geography [classes]" Am. museum of nat. hist. el-jh-sh

677 Textiles. Weaving

Art of spinning and weaving. 30min 16-si-\$50 35-si-nf-\$150 1930 Harvard 677

Taken in the unsurpassed Colonial rooms f the Metropolitan museum and under ne expert supervision of the museum the co curators

"Operating flax and wool spinning wheels, clock reel, and niddy-noddy for making skeins. Weaving processes on simple tape loom and on common hand loom. Arranging warp, setting up loom, preparing weft on bobbin." California

677.1 Linen

From flax to linen. 15min 16-si-\$24 1930 Eastman

"History of linen is traced from the planting of flaxseed to the finished prod-uct. This film is especially fitted for use

in geography, social science, and home economics. Flaxseed to line flax. Spinning line flax. Weaving linen cloth, Finishing linen." Indiana el-jh-sh-c Guide

677.2 Cotton

ilization's fabric. 25min 16-si-loan 35-si-nf-loan 1926? Fruit of the loom Civilization's fabric.

"Shows the manufacture of cotton fabric. Shows modern methods of ginning, carding, drawing, spinning, spooling, warp-ing, and weaving." Indiana el-jh

Conquering the desert. 30min 16-si-loan 35-si-nf-loan Goodyear

35-si-nf-loan Goodyear 677.2

"The transformation of a trackless waste in the Salt River Valley of Arizona into an expansive cotton plantation. . . Changing a sun-scorched wilderness of cactus and sagebrush to a blooming white harvest. The World War was interfering with the supply and shipment of the long staple Egyptian cotton, needed for quality tires, so the Goodyear Company in 1916 cleared a great plantation at Litchfield, Arizona, and presently was producing cotton in America that rivaled that from the Valley of the Nile. As most of the land lay just outside the Roosevelt Dam area, installation of an elaborate irrigation system was necessary. Eighty deep wells supply the water. The picture shows the planting of the seeds, the gathering of the crop, the movement of the cotton to the nearby gins and then to the textile mills, where it is made into tire fabric. The transformation from a few scattered tents to busy towns, with stores, schools, churches, model homes and well-kept gardens and lawns, is depicted in this . . . film." Producer sh

Cotton buds and cotton balls. ¼R 16-si-\$7.50 Bell & Howell 677.2 677.2

Produced by Arthur C. Pillsbury, using time-lapse photography

Cotton, from seed to cloth. 30min 16-si-\$48 35-si-nf-\$120 Films of commerce

Kodachrome color process
"This film shows the cotton producing regions of the world, the growing of cotton in the Southern states, ginning, transportation to New England, manufacture into cloth and blankets, with animations showing for the first time the details of spinning and weaving, cotton textiles and blankets in color photography, cotton Indian head, broadcloth, and prints used in dresses, in natural color. [Useful in] geography [classes]" Am. museum of nat. hist.

el-jh Guide

Cotton goods. 15min 16-si-\$24 1930 East-

"Covers the picking, ginning, baling, and sale of cotton—the carding, twisting, and drawing of yarn—the production of thread—the weaving and testing of cotton fabrics—and some of the multiple uses of cotton in everyday life." Producer
el-jh-sh-c Guide

Cotton growing. 15min 16-si-\$24 1928 677.2 Eastman

"Picking cotton, 'bedding up.' Boll weevil. The cotton blossom, young boll, mature boll, boll fully opened. Cotton gin in action, cotton press. An expert grading cotton. Loading steamer with bales of cotton." Ohio

el-jh-sh-c Guide

Land of cotton. 1R 16-si-loan 35-si-f-nf-loan General electric 677.2

o''llustrates the cotton industry from the planting of the seed to the finished fabric.

The story of cotton, beginning on the largest cotton plantation, the largest cotton terminal and one of the largest textile mills in the world, presented in an instructive and fascinating manner. [Useful in geography, domestic science, nature study, history and commercial geography [classes]" Am. museum of nat. hist.

Within the gates. 30min 16-si-loan 35-si-nf-loan Women's bureau 677.2 Produced by Roland Rogers picture

service, Inc.

"Begins with the picking of cotton, follows it through the fascinating processes in the mills by which the raw cotton is turned into thread, then into cloth; goes to the factory where the cloth is turned into a shirt; pictures the steps by which the garment is shipped to the store, where it is sold to the customer." Producer

"An interesting film for use in sociology classes or with groups which are interested in the workings of industry." Utah "Effective for the study of vocations, cotton and textiles, economics and sociology, and health and welfare problems." In-

677.3 Wool

Golden fleece. 1R 35-si-nf-loan 1923 U.S. 677.3 agric.

A Bureau of agricultural economics film "Jason, a progressive farmer, learns that clean handling of wool, grading, and co-öperative selling will bring success in his search for 'the golden fleece.' For wool growers particularly, but of general rural interest." Indiana

Woolen goods. 15min 16-si-\$24 1930 677.3 Eastman

"Sources of wool, llama wool, goats, sheep. Homespun woolens, sheep shearing, carding, spinning, knitting, old style weaving. Woolen factory, shearing shed, large flock of sheep, dyeing wool, mixing wool, carding machine, making clothes, testing fabric, shrinking cloth, cutting, basting linings and stiffening, finishing garment, pressing." Ohio

"Geography teachers will find good use for this film in studying wool. History and social science classes will discover illuminating contrasts between domestic and factory methods of production. Home economics classes will gain an adequate understanding of textile manufacture." Wisconsin

el-jh-sh-c Guide

Woolen yarn. 1R 16-si-loan 35-si-f-nf-loan General electric 677.3

The wool industry, from shearing the sheep to manufacturing the cloth, including views of the various methods and machines now used in carding, spinning, and weaving and giving a brief review of the history of the industry

"¡Useful in] geography, commercial geography and domestic science [classes]" Am. museum of nat. hist.

el-jh-sh

677.4 Silk. Rayon

From cocoon to kimona. ¹/₄R 16-si-\$5 Burton Holmes 677.4

"We see the tiny silkworms from the time they are hatched until they are sorted and the cocoons unraveled to become the raw silk of commerce." Colorado

Romance of rayon. 18min 16-si-loan 35-si-nf-loan Viscose 677.4 677.4

Produced by Pathescope company

Produced by Pathescope company America.

"Shows the manufacture of rayon in a way that will interest every pupil and impress facts on the memory in an emphatic manner. The boys and girls can figuratively tramp through the heart of the spruce woods for trees, watch them felled and floated down to the mills to be processed, gather fluffy cotton to be added, and guide the immense machines that spin the threads and weave them into shimmering cloth for use in every kind of wearing apparel." Washington

"[Useful in] geography, domestic science, commercial geography and general science (classes]" Am. museum of nat. hist.

el-jh-sh

Romantic story of silk. 18min 16-si-loan 35-si-nf-loan Belding Hemingway Cor-677.4

"Covers the complete story of silk, from the culture of the silkworms and the weaving of the raw silk in Japan, to the manufacture of the finished thread and fabrles in this country." Producer "(Useful inj biology, nature study, domestic science, geography and commercial geography [classes]" Am. museum of nat. hist.

Silk. 15min 16-si-\$24 1929 Eastman 677.4 "Gathering mulberrry leaves, feeding silkworm, cocoons, sorting cocoons, heating ovens, steaming cocoons, unreeling silk, Japanese silk factory, shipping silk, 'the silk express,' train moving at high speed, unloading silk. Weaving, opening silk bales, treating raw silk, preparing the warp, woof thread, winding quills, looms in operation, printing designs, finishing." Ohio el-jh-sh-c Guide

677.6 Special fabrics

Tapestries and how they are made. 15min 16-si-\$30 35-si-nf-\$60 1933 Metropolitan museum

"The technique of tapestry weaving from the dyeing of the woolen yarn to the fin-ished piece is . . . pictured in this . film. . Some noteworthy tapestries from the Museum's collection are shown." Projh-sh ducer

678 Rubber

Conquering the jungle. 15min 16-si-loan 35-si-nf-loan prior 1927 Goodyear 678

"Shows how rubber is produced in Sumatra; also interesting views of life and customs of the natives." Missouri

Romance of rubber. 2R 16-si-loan 1926 U.S. rubber

"Excellent film giving in detail the work on a rubber plantation in Sumatra. The care of the trees, the tapping by coolies,

Romance of rubber—Continued

and transportation of the crude rubber to
the United States where it is made into
various articles. The care of the laborers
and their homes are also shown and some
of the animal life of the country east of
Suez. ¡Useful in geography, commercial geography, general science, domestic science
and nature study ¡classes]" Am. museum of
nat. hist. el-jh-sh

Rubber. 15min 16-si-\$24 1929 Eastman 678

From the plantation in Sumatra where rubber trees are scarred and crude rubber processes shown, to the United States where rubber is converted into tires, tennis shoes and fountain pens el-jh-sh-c Guide

Rubbering in Sela Burton Holmes Selangor. 34R 16-si-\$15 678

"An extremely interesting and educational reel depicting the rubber industry of the Federated Malay States. Gathering and treating the rubber latex. Tamil laborers at work and at play." Indiana

Story of the tire. 30min 16-si-loan 35-si-nf-loan 1929 Goodyear 678

"This picture presents an interesting study in the manufacture of automobile tires—from the rubber and cotton plantations down through the various operations to the wrapping for shipment to the dealer." Utah "This sh-trade

679 Other industries

From wheat to bread. 15min 16-si-\$24 1928 Eastman 679

"Pictures primitive methods of making bread—a pioneer grist mill—a modern flour mill—a bakery, showing bread mixing, kneading, steaming, rising, baking." Pro-ducer el-jh-sh Guide

680 MECHANIC TRADES

681 Clocks

Time. 15min 16-si-loan 1934 Castle 681 Sponsored by the Elgin watch co.

"The whole story of man's attempt to keep record of time, from the prehistoric man's attempt to measure time by use of a rope of straw with knots tied in it at equal distance and measuring by the time of burning of one knot to another, through the candle era, the crude clocks down to the modern refined watches." Colorado el-jh Guide

681.4 Lenses, See 535.8

683 Firearms

Firearms of our forefathers. 14min 16-si-\$30 35-si-nf-\$60 1922 Metropolitan museum

"With introductory sections showing bow and crossbow, this film pictures the main steps in the development of firearms from the simple hand cannon to the modern machine gun. The actual manual of arms of a musketeer is demonstrated in costume.

'Close-up' views show clearly the action of the early gunlocks, also the magnificent en-richment of the rare weapons to which they belong." Producer jh-sh-c

684 Cabinet making

Furniture making. 15min 16-si-\$24 1929 Eastman 684

Eastman 684

"Design, Tudor Elizabethan period, Louis XIV period, Early American perlod, Georgian period, a drafting room, furniture models, hand carving. Machine production, multiple carving machine, the spindle carver, the jig sander, the belt sander, the automatic lathe, automatic-tuning sander, air router, making dove-tail joints, vertical-spindle borer, the jig saw, band saw, straight-line ripper, glueing joints, straitoplane, veneering. Finished product, assembling a table, painting by compressed air, pumicing, upholstering, arrangement of furniture in dining room, arrangement in living room." Ohio

el-jh-sh-c Guide el-jh-sh-c Guide

685 Shoemaking. See 675

687 Clothing industries. Sewing machines

Men's clothing industry. 30min 16-si-loan 1935 Films of commerce

Made in cooperation with Howard Clothes, inc. A vocational film showing the work of the designer, marker, shrinker, laboratory assistant, foreman, bushelman, salesman, etc. of the clothing industry. Shows also the necessary training for this work as given in the Central needle trades high school Guide

Modern industrial methods. 60min 16-siloan 35-si-nf-loan 1931 Singer 687

Produced by Paramount business pic-

Produced by Paramount business pictures, inc.
Pt 1 Lumbering; Pt 2 Cabinet making;
Pt 3 Mass production of interchangeable metal parts; Pt 4 Machine assembly and testing. Shows the manufacture of sewing machines from the sources of the raw materials to the finished product, arranged so that each reel may be shown separately or in connection with any other "Suitable for classes in sewing, manual training, chemistry, physics, geography, economics, vocational training, engineering, English, etc., and will be of interest and value to pupils of all ages, from elementary grades to colleges." Producer

690 BUILDING

Builders. 20min 16-sd-\$85 35-sd-nf-\$190 1931 Erpi

The construction of a skyscraper, showing the work of draftsmen, wreckers, excavators, steel workers and the laying of concrete floors, bricklaying and marble work. Plumbers at their job, terra cotta and tile setters, plasterers, roofers, painters and the men who install elevators are also shown jh-sh Guide

Home is what you make it. 3R 16-si-loan 35-si-nf-loan 1929 U.S. agric. 690

A Bureau of agricultural engineering, Bureau of chemistry and soils and Exten-sion service film

Home is what you make it—Continued
"Deals with exterior painting and repairs, adjustments on the interior and landscaping." Weaver

The story connected with it has been criticized as sentimental. Otherwise the film contains useful suggestions

691.5 Cement

From mountain to cement sack. 15min 16-si-loan 35-si-nf-loan prior 1927 Bur. 691.5 of mines

Made in cooperation with the Universal

atlas cement company

Most important of 80 processes involved most important of 30 processes involved in cement manufacture are explained to a boy by a manikin who steps from an encyclopedia. Parallel is drawn between bread baking and cement making. Covers entire process ending with filling and tying of

"[Useful in geography and commercial geography [classes]" Am. museum of nat. hist, sh

693.5 Concrete

15min 16-si-Construction that endures. loan 35-si-nf-loan 1931 Bur. of mines 693.5

Made in cooperation with the Universal atlas cement company

atlas cement company
"Begins with boy at desk writing theme on concrete. Manikin appears and demonstrates various ways in which concrete is employed in construction, including Panama Canal, bridges, highways, railroad beds, farm buildings, irrigation pipe, walls, tennis courts, swimming pools, a sport stadium, public buildings, airports, fountains, residences, and statuary. Animated graphs show proportions of cement, stone. sand, and water that will give best results; effect of too much water in mix on strength of concrete; and rapid increase in mileage of concrete pavement." Producer
"(Useful in geography and general

"[Useful in geography and general science [classes]" Am. museum of nat. hist.

697 Heating

Electric heat in industry. 3R 16-si-loan 35-si-f-nf-loan General electric 697

"Shows the value of electric heat in the making of high-quality products, and the economies in production it effects. This is illustrated by views of its application to the manufacture of glass, steel, shoes, automobile parts, and many other products." Producer jh-sh-c

15min 16-si-\$24 1927 Hot air heating. Eastman 697

"A hunting lodge, the fireplace, hunters warmed by open fire, radiation, conduction. convection currents all shown by action of hunters at fireplace. The stove, school children warming at stove, their actions demonstrate radiation, etc., use of stove jacket. The furnace, animations explain action of furnace, the thermostat, moisture control." Ohio

el-jh-sh-c Guide

700 FINE ARTS

707 Art-Study and teaching

Artist. (Vocational guidance ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 12min

A vocational film by Fred C. Smith, formerly editor, Magazine of vocational guidance, Harvard university "Portrayal of the artist in his daily work, his associates, and the amount and kind of preparation necessary to enter and advance in his profession." Colorado Jh-sh Guide

708 Art galleries and museums

Behind the scenes in the Metropolitan mu-seum. 25min 16-si-\$60 35-si-f-nf-\$120 Metropolitan museum

"Few visitors familiar with the galleries of a museum realize the amount and scope of work involved before an exhibit is seen by the public. This film shows the many workshops maintained by the Museum, the workshops maintained by the Museum, the registration and photographing of works of art, the manner in which they are cared for, and their installation in a gallery." Producer el-jh-sh-c

709 Art—History

Hidden talisman. 15min 16-si-\$30 35-si-nf-\$60 Metropolitan museum 709

"The scenes are laid in The Cloisters, the mediaeval museum on Fort Washington Heights, New York City, a branch of The Metropolitan Museum of Art. After being shown views of the buildings and grounds, one sees the ghost of a fifteenth-century French lady searching for a tallsman which she has hidden in a bit of carving, the finding of which is essential to her happiness. The actors are Dorothy Sands, Florence House, and Donald Hartman." Producer
Withdrawn.

710 LANDSCAPE GARDENING

711 City planning

Growth of cities and their problems. 12min 16-si-apply 35-si-nf-apply 1920 Soc. for visual educ. 711

or visual educ. 711

"Intended to make pupils realize some of the common problems attending the growth of communities from small towns or villages to thriving citles. Problems as well as solutions are visually suggested. Questions relating to transportation, public safety, sanitation, education, law and order, recreation, and similar matters of civic interest, are studied. . Furnishes a . . . basis for . . discussion and instruction in practical Civics." Producer

Guide

715 Tree planting

For botany of trees see class 582

Planting and care of trees. 15min 16-si-\$24 1928 Eastman 715

A class is instructed by film and charts in the life cycles of the apple-tree tent caterpillar, the codling-moth, and the

Planting and care of trees-Continued white-marked tussock moth and in the spraying of trees to control these pests. They leave the school to hunt insects and discover eggs, cocoons, and larvae of the tussock moth, a colony of tent caterpillars and a shade tree ruined by borers. In the second unit a grafted tree is planted and the following spring examined. The film ends with the reunion of teacher and pupils 37 years after the planting of a school grove and the growth of the trees is noted el-jh-sh Guide

716 Gardening. See 635

720 Architecture

721.9 Wrought iron

Making of wrought iron. 9min 16-si-\$30 35-si-nf-\$60 Metropolitan museum

Samuel Yellin making a section of grille. The cutting, the shaping, and binding together of the various parts of the

725 Commercial buildings

Empires of steel. 3R 35-si-nf-loan 1931? U.S. steel

"Shows the rolling, fabrication, and erection of steel for a modern skyscraper— the Empire State Building, New York City." Producer el-ih

Fabrication and erection of the Bank of Manhattan building. 30min 16-si-loan 40min 35-si-nf-loan Am. inst. of steel construction

Details of steel construction as shown in the erection of this New York city build-

727 School buildings and grounds

School beautiful. (Citizenship ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 727

By C. A. Stebbins, formerly with the United States Bureau of education "How a civics class planned to beautify the school grounds and how the plans were carried to completion." Indiana el-Jh Guide

728 Residences

Houses of the Arctic and the Tropics. (Harvard Pathe ser.) 30min 16-si-\$48 35-si-nf-\$120 Films of commerce 728

35-si-ni-\$120 Films of commerce 728

"First reel shows how the Esquimos of the Arctic live, the building of an igloo, from the beginning to the placing of the ice slab window, the transferring of family belongings to the new abode, Esquimos having evening meal, family going to bed. Second reel shows life among the Fiji Islanders, building their thatched huts, etc. Pictures are almost ideal in combining the informative and interesting." Minnesota

See also "Boats and fishermen of the Arctic and the Tropics," class 639

730 Sculpture

Sculpture in stone. 15min : f-nf-\$75 1929 Harvard 15min 16-si-\$25 35-si-

Creation in York marble of a crouching jaguar, the work of Anna Hyatt Huntington. The whole process is shown, from the crude block of marble, to the final creative effort of the artist. Details of the technique are shown throughout the progress of the work, and there are frequent closeups of the tools in actual use. From the block of marble emerges a beast of the jungle, vibrant with life

737 Numismatics. Medals

For minting of coins, see 332.4

Medal maker. 45min 16-si-\$75 35-si-nf-\$225 1930 Harvard

Made especially for the American numis-

Made especially for the American numismatic society
"The making of medals and coins . . . is demonstrated by Laura Gardin Fraser . . . best known for her official Government medals of Lindbergh and Byrd, and for her work for the National Sculpture Society. Several sketches precede the final drawings, one for the face and one for the reverse, exactly the size the finished medal is to be. On smooth plaques of modeling clay, three times as large as the finished medal, Mrs. Fraser then sketches in the outlines of her design. Working directly from the living model, deftly she builds up the relief with tiny rolls and balls of clay. With delicate touches of the finger-tips, and with infinitesimal additions and subtractions, the artist little by little improves the rough figure. The film shows in detail all the interesting steps of transforming these clay plaques into plaster moulds, casts, bronze moulds, and then finally steel dies reduce to one-third the size of the plaques. The steel dies in turn, placed in an enormous stamping machine, stamp out the finished medal." Producer jh-sh-c

738 Pottery

Potter's wheel. 1R 16-si-loan 35-si-f-nf-loan General electric 738

Manufacture of porcelain insulating parts of electric apparatus, including the mixing of ingredients, molding, turning, glazing, and firing in huge kilns "(Useful inj general science and shop work [classes]" Am, museum of nat, hist.

Pottery maker. 14min 16-si-\$30 35-si-nf-\$60 prior 1927 Metropolitan museum 738

"Introduces us to the workroom of a potter in the 1860's. A lady, accompanied by her granddaughter, enters. The little girl accidentally crushes the vase on which the potter is working. To comfort her he 'throws' another. As the spinning clay takes form the spectator sees repeated the age-old process of the making of pottery." Producer jh-sh

Tableware. 15min 16-si-\$24 1929 East-

"Modern methods of manufacture, as compared with old, show perfection in pre-paring clays for pottery. Modeling, casting, firing, decorating tableware." Producer Guide

739 Bronzes. Silverware

For metallurgy of silver, see class 669.2

45min 16-si-\$75 35-Harvard 739 From clay to bronze. si-nf-\$225 1929 Harvard

The artist's work, as it progresses from the preliminary sketch in clay to the ultimate achievement in bronze, is shown by detailed demonstration. The first reel shows Miss Katherine W. Lane, at work in her studio. She erects a wire armature or framework builds around it the clay image. studio. She erects a wire armature or framework, builds around it the clay image of her pet greyhound, and then works over this clay model until it is finished, ready for casting. In the second reel is shown the making of a plaster mould by Leo Toschi, from which is made a plaster cast of the subject. The third reel demonstrates the making of a bronze cast by the sand mould method jh-sh-c

Making of a bronze statue. . \$60 35-si-nf-\$120 1928 29min 16-si-Metropolitan 739 museum

Produced by Allen Eaton and Merwyn W.

Here we see the many processes involved in making a bronze figure—the equestrian statue of Theodore Roosevelt by Alexander Phimister Proctor

jh-sh-c

Silver: heirlooms of tomorrow. 35min 16-Bur. 01 si-loan 35-si-nf-loan 1930?

Made in cooperation with the Gorham company

Made in cooperation with the Gorham company

"Reel 1 shows aboriginal girl in tropical forest admiring her silver ornaments. Scene then changes to modern formal dinner, where silver table appointments attract attention; in consequence, host describes visit to silver factory in New England where dexterous craftsmen transform sheets of sterling into beautiful creations of silverware. He reminds guests that Paul Revere was a silversmith and shows examples of his workmanship, treasured hefrlooms of today. As host speaks, scenes shift from dining table to factory processes and include views of skilled designers making sketches and models; silver going into factory as ingots, sheets, or wire; first step in reproducing artist's design—making steel dies for stamping or molds for casting; cutting and polishing dies; stamping fatware from sheet silver; annealing of silver between each step of process to keep it malleable; and successive processes by which spoons, forks, and other articles are shaped—cross rolling, pinch rolling, grading, cutting to outline, and stamping blanks. Reel 2 shows making of hollow ware, some entirely by hand; chasing—most beautiful and difficult form of hand decoration; engraving; and assembling, polishing, and inspection of completed pieces. Reel 3 shows mining of ore through shafts and in open pits; concentration, smelting, and refining of silver by electrolysis; dissolving of silver in ore with cyanide solution; precipitating and filtering silver sludge; and melting and pouring of ingots which later may be rolled into sheets or wire. Final scenes picture church wedding and reception afterward, with guests inspecting silver bridal gifts." Producer

Jh-sh-c

Silversmith. 30min 16-si-\$50 35-si-nf-\$150 1930 Harvard

"Mr. Arthur J. Stone was asked to co-operate with the Museum of Fine Arts, in the making of this film. [We see] a

plain ribbon of silver develop into a beautifully balanced spoon. The handle is narrowed and lengthened, the bowl widened and shaped, and the surface finished smoothly. A more elaborate piece is the large bowl which also is created before the eyes of the audience. The craftsman with repeated strokes flutes the large disk of silver, and gradually forms it toward the desired shape." Producer

el-lh-sh-c

DRAWING. DECORATION

Freehand drawing

Models in motion. 14 films of 5min ea 16-si-\$6 ea 1930 Eastman 741 si-\$6 ea 1930

Made under the direction of Dr Charles H. Woodbury and Mrs Elizabeth Ward Perkins, as the result of their experience with drawing classes in the Woodbury training school in applied observation, Boston Ward Charles and Char ton, Massachusetts

The films listed are arranged in the order of their difficulty, from elementary to advanced: Young goats playing; Goose in water; Raking coffee; Man shoveling corn; Egyptian dancer; Kitten and duck playing; Leaping a crevasse; Gypsy dancer; Spanish dancer; Baseball batter; Baseball pitcher; Rodeo; Tilden playing tennis; Shadow boxing (defensive)

ing (defensive)

"Each picture is an episode in which a model performs, repeatedly, the complete round of some characteristic action. In drawing from such a film, it is necessary to build up an image of the model as a whole through seeing the identical action repeated many times on the screen. A drawing is then made rapidly, from memory, with no erasures or corrections of any kind. After further observations and comparisons, additional drawings are made, until a satisfactory result is secured." Producer jh-sh-c Guide

744 Mechanical drawing

Introduction to mechanical drawing. 20min 16-si-\$30 1932 Cocking

Mechanical drawing is here presented clearly and practically for the beginner. The necessary materials are lined up and the correct methods of procedure demonstrated. Drawings are actually made of articles requiring one, two and three views

745 Weaving. See 677

748 Stained glass

For glass making, see class 666.1

Making of a stained-glass window. 16-si-\$90 35-si-nf-\$180 1932 45min Metropolitan museum

Made in the Department of stained glass of the Washington cathedral in Hunting-don Valley, Pennsylvania

Each step is shown, from the actual making of the colored glass to the final cementing and cleaning of the finished panel

749 Artistic furniture

For cabinet making, see class 684 American wing. 45min 16-si-\$90 35-si-nf-\$180 prior 1927 Metropolitan museum

"The façade and the rooms of the American Wing, with close-up pictures of the outstanding object in each interior. The views are arranged chronologically and are augmented by interpretive titles that outline briefly the significance of the various periods. The exteriors of several houses contemporary with the rooms in the American Wing are introduced to supplement the Museum interiors." Producer lib-sh-c jh-sh-c

750 Painting

757 Portrait painting

Painting a portrait by Wayman Adams. 40min 16-si-\$90 35-si-nf-\$180 1933 1933 Metropolitan museum

Made in the studio of Wayman Adams The painter begins with the setting of the palette, then builds up the portrait step by step jh-sh-c

760 Engraving

761 Wood engraving

Last of the wood engravers. 30min 16-si-\$50 35-si-f-nf-\$150 1930 Harvard 761

To preserve and make available to posterity the extraordinary technique of Mr. Timothy Cole, last of the great wood engravers, the Boston museum of fine arts commissioned the production of this picture. ture

The El Greco masterpiece, "Fray Feliz Hortensio." With a reproduction of the painting to guide him, Mr. Cole chooses a carefully sharpened graver and begins to cut the lines in the block of boxwood. This was the last engraving carved by Mr Cole into the control of the control just before he died

767 Etching

30min 16-si-\$50 35-si-nf-\$150 Drypoint. Harvard

Supervised by Henry P. Rossiter, Curator of prints at the Museum of fine arts, Boston

Boston
"The whole process from the original sketch to the final print. The artist who illustrates the technique of drypoint is Mr. Frederick G. Hall, of the Guild of Boston Artists, best known for his etchings of Old World houses and people. To make quite plain the means by which the various characteristic tones of drypoint are produced, he makes a small plate illustrating the specialized uses of the individual tools. Then, on a larger plate, with drypoint needle, diamond point, graver, and roulette Mr. Hall builds up the portrait, which he has transferred to the plate from the original sketch, by minute ploughing of the copper. The artist then inks the plate thoroughly and puts it through his picturesque hand press." Producer

Etcher and his art. 6min 16-si-\$7.78 35-si-f-nf-apply Bray 767

"Demonstration of etching, from the sketching of the first 'cartoon' to the 'pulling' of the artist's proof from the finished copper plate. Posed by Walter Raymond Duff, etcher of the famous Harvard Campus pictures." Producer

Etcher's art. 30min 16-si-\$50 35-si-nf-\$150 1929 Harvard 767

Supervised by Henry P. Rossiter, Curator of prints at the Museum of fine arts, Boston

tor of prints at the Museum of fine arts, Boston

"At the request of the Museum of Fine Arts, the widely-known artist Frank W. Benson lent his cooperation for this production. Mr. Benson has achieved an international reputation for his etchings of wild fowl. A brief historical and explanatory resumé at the opening of the film displays etchings by various masters, past and present, reproduced from original prints in the Museum. The artist begins by transferring a pencil sketch by pressure to the coated and smoked surface of a copper plate. Then, guided by the faintly visible lines, Mr. Benson's delicate needle cuts through the coating, thus exposing the copper along the lines of the drawing. When the hundreds of lines which compose an etching are all exposed, the artist floods his plate with acid to etch them into the copper. He then cleans his plate, inks it, and pulls a proof." Producer

So few people realize the great difference between the acid process (etching) and the tool process (drypoint) that it is suggested that this film be shown together with "Drypoint," listed above

770 PHOTOGRAPHY

778 Moving pictures

Finding his voice. 14min 16-sd-apply 35-sd-f-nf-loan 1929 Western electric

"A cartoon type talkie showing how motion pictures of the sound on film type are made and reproduced. The animated drawings, together with the verbal explanation, give a comprehensive treatment to this subject." Texas jh-sh-c

How movies move. 8min 16-si-\$9.84 35-sif-nf-apply Bray

"Animated technical drawings combined with actual photography explain the operations of the motion picture projection machine." Indiana ih-sh-c

How talkies talk. 13min 16-sd-apply 35sd-f-apply Gaumont British

"The principles of sound recording reproduction are demonstrated." Prod Guide and

Museum of modern art film series. 16-sisd-apply 35-si-sd-f-nf-apply Museum of modern art

The museum has collected some of the The museum has collected some of the outstanding films from 1895 to date. They have made a series of programs running for one-two hours. In the 35mm width most of the films are on safety stock but a few are available on flammable stock only; also some are available in silent versions only and some in sound only. Users should therefore make very careful inquiries. The various units in Series no. 1 Museum of modern art film series—Cont.

cover the following points: Development of
the narrative; Rise of the American film;
D. W. Griffith; German influence; The
talkies (or for those not equipped with
sound apparatus, End of the silent era).
In Series 2 the following are offered: Western film; Comedies; Documentary films;
Mystery and violence; and Screen personalities. For a complete list of the films used
to illustrate each of the above units apply
to the Museum

Out where the sound begins. 14min 16sd-apply 35-sd-f-nf-loan 1930? Western electric 778

"Showing how motion picture sound equipment is built in the great workshops where most of the world's telephones have been made for more than fifty years. Musical effects and other sound effects are synchronized with the action." Producer jh-sh trade

780 Music

782 Operas

Films based on operas are classed with Photoplays, class F

784 Vocal music

Jack and Jill in Songland. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 784

"After their historic tumble Jack and Jill encounter a Song Man. He explains that his work is to catch the notes of elfin bands and put them down in permanent form. After causing a staff to appear, he explains its purpose. He leaves and the children gather the notes from a new melody and place them on the staff. The Song Man returns and assists Jack and Jill in setting words to the music. As a finale, they sing the melody and the audlence is invited to join." Producer el-jh-sh-c Guide

787 Stringed instruments

String choir. 10min 16-sd-\$50 35-sd-nf-\$100 1931 Erpi 787

"The picture opens with the string ensemble playing a selection from 'L'Arlésienne' by Bizet. After the characteristics of the violin are explained a violinist renders a solo. The same procedure is followed for the other instruments. The camera is focussed at various angles to show technique involved in playing these instruments. A string quartet renders a part of the Haydn 'Kaiser Quartet' and the picture closes with the scene of the Czardas from 'Hejre Kati' by Hubay." Producer el-Jh-sh-c Guide

788 Wind instruments

Brass choir. 10min 16-sd-\$50 35-sd-nf-\$100 1930 Erpi 788

"The individual instruments of the brass choir—the cornet, trumpet, French horn, trombone, tuba, and their peculiar characteristics. Solo numbers represent the best compositions that have been prepared for the individual instruments. The ensemble gives a . . performance of the 'March' and the 'Pilgrims' Chorus' from 'Tannhauser' by Wagner.'' Producer el-jh-sh-c Guide

Woodwind choir. 10min 16-sd-\$50 35-sdnf-\$100 1931 Erpi 788

"The film opens with the woodwind choir playing Corelli's 'Gavotte in F' after which an announcer introduces the choir as an entity and describes its importance in the full symphony orchestra. Opportunity is presented for detailed study of each instrument. Its qualities are demonstrated by typical solo passages. The picture closes with a composition written expressly for performance by the Woodwind Choir—'Hurdy Gurdy' by Christmann." Producer el-lh-sh-c Guide

789 Percussion instruments

Percussion group. 10min 16-sd-\$50 35-sdnf-\$100 1930 Erpi **789**

Showing the traditional snare, bass and kettle drums, and also the tambourine, cymbals, triangle, bells, and xylophone. The opening measures of music in this picture are played on the celesta. Selections from Schubert, Chopin, Beethoven and Meyerbeer are used

Jh-sh-c Guide

790 AMUSEMENTS

791.3 Circus

Behind the ropes. 1R 16-si-\$75 Nat. dairy council 791.3

"Adventures of three children who go to the circus and are taken behind the scenes to see how circus people and animals live and work." Producer

ei

792.1 Passion play

Oberammergau and the Passion players. 1R 16-si-loan 35-si-nf-loan German tourist 792.1

"This film pictures this beautiful city which is noted for the Passion Play, and for the wonderful wood carvings. Many of the leading characters for the 1934 play are shown in the film working at their respective trades." Iowa univ.

793.3 Dancing

Japanese cabaret. ¼R 16-si-\$5 Burton Holmes 793.3

"Geisha girls entertain the patrons by playing samisens and drums and performing their ancient dances." Kansas

793.8 Magic

Magic versus science. 1R 16-sd-loan 35sd-f-nf-loan General electric 793.8

"W. A. Gluesing of the G-E Publicity
Department performs a number of feats of
stage magic and contrasts them with several apparently mysterious scientific
'stunts' from the 'House of Magic.' A
young woman's attempts to duplicate the
sleight-of-hand of the magician furnish
some amusing situations." Producer
sh-trade

si - silent; sd - sound; f - inflammable; nf - safety; el - elementary; jh - junior high; sh - senior high; c - college

796 Athletics and outdoor sports

Progressive training in "ball handling" games. (Physical education ser.) 12min 16-sd-apply 35-sd-f-apply Gaumont British 796

"Shows classes of boys and girls from the ages of 4 to 14 years illustrating progressive practices and games which lead to skill in ballhandling." Producer Guide

Summer playing field activities. (Physical education ser.) 12min 16-sd-apply 35sd-f-apply Gaumont British

"Illustrates summer activities taken on a playing field with boys 10 years of age." Producer

Guide

796.32 Basketball

Modern basketball fundamentals. 30min 16-si-\$48 1935 Eastman 796.32 796.32

"Made under the direction of Coach For-rest C. Allen of the University of Kansas, who is one of the outstanding authorities of the country on the subject of basket-ball." Iowa univ.

"Individual offense, individual defense, team offense, team defense; normal and slow motion." Iowa state college

ih-sh

796.33 Football

Attack. (Association football ser.) 16-sd-apply 35-sd-f-apply Gaumont British 796.33

"Members of the Arsenal team show the various ways in which an attack may be developed." Producer

Guide

Modern football fundamentals. 30min 16si-\$48 1934 Eastman 796.33

"This picture was planned and directed by Coach Kipke of the University of Michi-gan and is devoted entirely to teaching high school boys the safe and correct method of blocking, charging, tackling, etc." Indiana

etc." Indiana
Fundamental football techniques and drills. Definite methods of handling the body to prevent injuries. Analyses of body movement in slow motion are followed by the same action at normal speed to visualize the complete performance. The application of the techniques to typical situations in scrimmage, and the introduction of scenes from actual games that show the performance of fundamentals under stress of severe competition. Also known under title "Fundamentals of football"

el-jh-sh-c Guide

Training and practical hints. (Association football ser.) 10min 16-sd-apply 35-sdf-apply Gaumont British

"Intended specially for schoolboys . . . demonstrated by a number of selected schoolboys, with Tom Whittaker of the Arsenal as trainer." Producer

796.5 Mountaineering

Amid Alpine snows. (Seeing Canada ser.) 5min 16-si-\$7.92 35-si-nf-apply Canadian gov't. 796.5

"The experiences of members of the Alpine Club of Canada on one of their annual climbs at Berg Lake and Mount Robson." Producer el-Jh-sh

Mountaineering memories. (Seeing Canada ser.) 6min 16-si-\$9.69 35-si-nf apply Canadian gov't. 796.5

From Banff to Mt Assiniboine. Shows in detail the Canadian Rockies and close-ups

of a squirrel and porcupine
"¡Useful in geography, physiography and
nature study [classes]" Am. museum of
nat. hist. el-jh-sh

When guide meets guide. (Seeing Canada ser.) 5min 16-si-\$8.67 35-si-nf-apply Canadian gov't. 796.5

"Showing Nova Scotia's woodland prowess in unique effects at the annual tourna-ment of the Guides' Association.'' Massachusetts jh

796.9 Winter sports

When winter comes. (Seeing Canada ser.) 6min 16-si-\$10.29 35-si-nf-apply Cana-796.9 dian gov't.

"A portrayal of the winter sports and other activities at Banff, the famous Canadian mountain resort in the Rockies. [Useful in geography and nature study [classes]" Am. museum of nat. hist. ih

Where snowtime is joytime. (Seeing Canada ser.) 5min 16-si-\$8.55 35-si-nf-apply Canadian gov't. 796.9

"The thrills and delights of skiing which has become Canada's most popular winter sport are splendidly illustrated in this film photographed in and around Ottawa, the capital of Canada." Texas

jh

Where winter sport is king. (Seeing Canada ser.) 6min 16-si-\$9.87 35-si-nf-apply Canadian gov't. 796.9

Winter sport activities at the historic city of Quebec, showing skiing, bobsledding, snow-shoeing, tobogganing, ice skating, curling, skijoring, etc.

A recreational film also useful in "geography and nature study [classes]" Am. museum of nat. hist.

jh

797 Boating. Swimming

797.1 Boating

Motor boat ramble. (Seeing Canada ser.) 6min 16-si-\$10.23 35-si-nf-apply Canadian gov't.

"A trip in a small motor boat from Belleville to Orillia, Ontario, through the famous Trent Valley canal. The route is through one of the most prosperous and fertile sections of the Dominion, and . . . views are shown of the towns and cities en route and Motor boat ramble—Continued
also the beautiful Kawartha lakes region
. . . Shows the operation of the world's
greatest hydraulic lift lock at Peterborough
and also the other mammoth lift lock at
Kirkfield." Producer

Nipigon trails. (Seeing Canada ser.) 8min 16-si-\$10.65 35-si-nf-apply Canadian

"A picturesque canoe trip down the Nipi-gon River, showing the shooting of rapids and the wild scenery of that section of Canada." Colorado

797.2 Swimming

Crystal champions. (Grantland Rice Sportlight) 1R 16-sd-\$30 1929 Gutlohn 797.2

Produced by Pathe
An expert turtle-catcher at work, stunt
swimming under water, and swimming and
diving exhibitions. Johnny Wiesmuller,
Martha Norelius, Helen Meany, Newton
Perry, Pete Desjardines
el-Jh-sh-c

799 Game protection

Forest fires or game? 1R 16-si-sd-loan 35-si-sd-nf-loan 1931 U.S. agric. 799

A Forest service film
"Exposition of forests as a home for game, forest streams a home for fish. Forest fires and unrestricted hunting and fishing destroy both the occupants and the home." Producer

wild-life resource. 2R 16-si-sd-loan 35-si-sd-nf-loan 1933 U.S. agric. **799**

A Bureau of biological survey film "Shows what is being done to preserve our birds and mammals. Many forms of wild life, ranging from quail and ducks to moose and grizzly bears are shown in their natural habitat, and factors influencing their diminution are brought out. The pathetic last living specimen of the heath hen is brought to the screen." California

Unburned woodlands. 1R 16-si-loan 35-si-nf-loan 1931 U.S. agric. 799

Companion picture to "Forest fire or game?" class 799
"Contrasts the advantages of unburned with the disadvantages of burned woodlands. Made in the mountains of North Carolina." Nat. fire protection assn.

799.1 Fishing

Angler's idyll. (Seeing Canada ser.) 8min 16-si-\$11.43 35-si-nf-apply Canadian Canadian gov't. 799.1

"We see the crimson spotted battlers lashing out at the lures and envision the suspense of the anglers themselves as the fish leap and thresh to win clear. As a background for this . . . action we have the natural beauty of the deep woods of northern Ontario." Producer el-jh

Battling with muskies. 5min 16-si-\$8.73 35-

si-nf-\$49.56 Canadian gov't. 799.1
A sporting film useful with clubs and those interested in fishing as a sport
"A fishing trip in the lake district of Northern Ontario containing views of expert anglers in action against the flercest

and largest of fresh water fish—the maski-nonge." Producer "[Usefui in geography, biology and na-ture study [classes]" Am. museum of nat. hist. el-jh-sh

Channel bass fishing off Virginia. 1R 16-si-rent for subscriptions 35-si-nf-rent for subscriptions Field & Stream 799.1

tor subscriptions Field & Stream 799.1

Taken by Harold McCracken and directed by Hy Watson, former editor of Field & stream

"Shot after shot of expert surf casters battling with that grand bronze and gold warrior of the Atlantic—the channel bass—and bringing their fish in over the bounding breakers, on to the beach.

Now and then we watch a shark being taken, for those who tempt the Atlantic with a fishing line never can be sure just what they are going to catch.

Then. .cooking oysters over a wood fire on the beach." Producer

Jh-sh-c Jh-sh-c

Fish and bear tale. (Seeing Canada ser.) 10min 16-si-\$11.77 35-si-nf-apply Canadian gov't. 799.1

"Fishing in its various forms on the Miramichi River, New Brunswick, finally ending with the capture alive of three bear cubs." Producer
"Boys and girls are much interested in this picture. [Useful in nature study, geography and biology [classes]" Am. museum of nat. hist.
el-jh-sh

nin' time. (Seeing Canada ser.) 8min 16-si-\$10.59 35-si-nf-apply Canadian Fishin' time. 799.1

gov I.

"This picture was photographed on the picturesque Nipigon River, noted for its magnificent scenic beauties. We see the Virgin Falls near Nipigon Lodge, a canoe portage through a pine forest, fishing in the rapids and catching speckled trout. [Useful in geography and nature study [classes]" Am. museum of nat. hist.

In quest of the bronze-back. (Seeing Canada ser.) 5min 16-si-\$8.43 35-si-nfapply Canadian gov't.

"Experiences of a party of anglers in quest of this sportiest and most fighting species of bass at Lake Weslemkoon, On-tario." Utah Jh

Invading muskieland. (Seeing Canada ser.) 6min 16-si-\$10.50 35-si-nf-apply Canadian gov't.

"The experiences of a party of famous anglers in the lake regions of northern Ontario seeking the fiercest and gamest of fresh-water fish—the maskinonge." Indiana

"Splendid scenic views, camp life, an exciting pictures of anglers in action."

Literary fish story. (Seeing Canada ser.) 8min 16-si-\$11.22 35-si-nf-apply Canadian gov't.

dian gov't.

"Rex Beach, famous author, Ray Long, noted magazine editor, and Roy Howard, publisher of the Scripps-Howard newspapers—lay down their pens long enough to grasp their fishing rods and hie themselves to the Jacques Cartier River, famous trout stream in the Laurentians. In this film the camera registers their experiences in quest of the wily speckled trout of this region." Producer

Tigers of the north. (Seeing Canada ser.) 6min 16-si-\$10.29 35-si-nf-apply Canadian gov't. 799.1

"Depicts the experiences of a party of expert fishermen in the Lake Vermillion district where the maskinonge, the flercest and gamest of fresh water fish, is known as the "Tiger of the North." Massachusetts

Jh

With rod and fly. (Seeing Canada ser.) 5min 16-si-\$8.25 35-si-nf-apply Cana-799.1 dian gov't.

"A sporting film of special interest to followers of Izaak Walton. It depicts, in a somewhat lighter vein, the experiences of a party of fishing enthusiasts on one of the many small lakes of the Upper Gatineau River district near Canada's Capital City, [Ottawa]" Producer

799.2 Hunting

Regulated deer hunting. 2R 16-si-sd-loan 35-si-sd-nf-loan U.S. agric. 799.2

A Forest service film "Shows damage done by deer when they shows damage done by deer when they become too numerous, and how they are removed by trapping, artificial rearing and shipping of fawns, and by regulated hunting in the Pisgah National Forest and Game Preserve in North Carolina." California fornia

With gun and dog. (Seeing Canada ser.) 6min 16-si-\$9.18 35-si-nf-apply Canada dian gov't. 799.2

Depicts experiences of a party of sportsmen on deer-hunting expedition in Laurentian hills

910 DESCRIPTION AND TRAVEL

913 Antiquities. See 571

914 EUROPE

From London to Paris by air. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ.

Altho an old film with the pilots in the open and old type of chairs in the plane, etc., this has value in its views of London and of the French countryside showing also an old road built by Caesar el-jh Guide

914.1 Scotland

Bonnie Scotland. 1R 16-si-\$24 Edited pic-

An Urban production Scenes in the Highlands and Lowlands

Wee Scotch piper. (Children of all lands ser.) 15min 16-si-\$24 35-si-nf-\$60 1928 Films of commerce

Produced by Pathe and is by Madeleine

Brandeis
"The story of a little Scotch boy who cares for a lamb and in return receives a set of bagpipes. Beautiful scenery of Scotland." Iowa state college

914.15 Ireland

Bell & Emerald isle. 1R 16-si-apply 914.15 Howell

Scenes of mountains, lakes, and valleys, along the bleak and rocky coast of southern Ireland and the life and industries of the people

Ramble in Erin. 4R 16-si-loan 35-si-nfloan Cunard

Available to adult groups only and may be secured in 1 short reel (16-si-loan 35-si-nf-loan). May also be had in any of these versions under the title "Ireland"

Shows departure of the Cunarder, "Samaria," shipboard views, and scenes of Galway, Croagh Patrick Pilgrimage, Cobh (Queenstown), Blarney Castle, Killarney, Cork, Limerick, Clare, and Dublin "(Useful inj geography (classes)" Am. museum of nat. hist.

914.2 England

By the side of the road. (R. C. Bruce European scenic pictures ser.) 15min 16-si-\$24 35-si-nf-\$60 1929? Films of 914.2 commerce

Produced by Educational films corpora-

Produced by Educational films corporation of America

A trip thru the English countryside in which we see milk carts, thatched roof houses, bridges, a gypsy encampment and Ann Hathaway's home. Continuing our trip into Wales we see the attractive countryside. The film is titled with extracts from Tennyson's "The Brook" el-th-sh el-jh-sh

kespeare. 12min 16-sd-a apply Gaumont British Shakespeare. 16-sd-apply 35-sd-f-"Shows many scenes among which Shakespeare lived . . . which are reflected in his imagery." Producer Guide

914.21 London

London. 15min 16-si-\$24 1935 Eastman

Illustrates the significance of the city's location and the network of communications connecting the world-wide British Empire. London as it lives. The routine of the business day in markets, shops, and financial districts, as well as the principal historic landmarks, parks, military routine at Whitehall, and views of the city at night el-jh Guide

914.3 Germany

Black forest village. 4R 16-si-\$5 Bell & 914.3 Howell

"Quaint buildings with snow covered roofs, fringed with icicles; snow capped mountains, and a lake of real ice where famous skaters perform with graceful skill—under a hot summer sun!" Producer el-jh-sh

In old Hessen. 2R 16-si-sd-loan German tourist 914.3

Against a background of ancient buildings peasants are shown in their quaint costumes

Romantic Rhine. 2R 35-si-nf-loan Ger-914.3 man tourist

The Rhine from Mainz to Koblenz, ruins of ancient castles and strongholds and sloping vineyards
Also known under title: Along the romantic Rhine

914.36 Austria

Glimpses of Vienna. 1/4 R 16-si-\$5 Burton 914.36 Holmes

Ruins of the Palace of Justice; the Rath-aus, the Burg theatre, the Parliament, Danube canal and many Tyroler types

Picturesque Salzburg. ¼R 16-si-\$5 Burton 914.36 Holmes

A beautiful city, nestled in the hills of Austria, with winding roads and impressive architecture

914.37 Czechoslovak Republic

Children of Bohemia. 17min 16-si-\$30 1930 Kodascope

Produced by Post
"Scenes in Czechoslovakia in which children are seen, walking in the streets of the city, or at work on farms in the country, driving geese, etc. New captions could with advantage be introduced which would point out the geographical features of the scenes. There are good pictures of village life and work. [Useful] to illustrate geography lessons on Czechoslovakia for junior and senior students." British film inst.

914.38 Poland

Children of Poland. 8min 16-si-\$30 Koda-914.38 scope

Produced by Post
"Boys and girls of peasant homes. In fields. Spinning, Tending geese. With dairy herds. To church in colorful costumes."

'Neath Poland's harvest skies. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ. 914.38

educ. 914.30

"Not only illuminative of Polish peasant life, but possesses added beauty because of the quaint garb of the natives, hand-woven from 'rainbow wool' peculiar to the peaceful district west of Warsaw where the scenes were taken. The picture shows the life of the countryside and villages during the happy harvest season, and the preparation for the holiday festivities." Iowa state college jh Guide

914.39 Hungary

Hungary. 15min 16-si-\$24 1934 Eastman

"Pictures large estates, primitive and modern agricultural methods, animal husbandry, village life, embroidery, and a wedding festival. Shows primitive transportation—the fishing, mining, sugar-belt, and steel industries—Budapest—educational opportunities—medieval architecture." Producer el-Jh Guide

914.4 France

Apple-blossom time in Normandy. 1R 16si-apply 35-si-nf-apply Soc. for visual 914.4

Scenes of town and country life along the Seine in Northwestern France, photographed during the most alluring season. Shows the historic village of Falaise, birthplace of William the Conqueror, snuggled under the protection of its old castle; Norman country homes with flowering orchards and herds, and types of simple folk at their tasks of tilling and basket-making Guide

Great waters of Versailles. 1/4 R 16-si-\$5 Burton Holmes

Many views of beautiful fountains—single, in groups, high and low. Quite lovely

914.436 Paris

Cafe life in Paris. 1/4 R 16-si-\$5 Burton Holmes 914,436

"Glimpses of the happy side of life at the Cafe de la Paix and the Cafe du Dome." Producer

Nine glories of Paris. 1/4R 16-si-\$5 Burton Holmes 914.436 914.436

"The Arch of Victory; the Tomb of the Unknown Soldier; the Champs Elyssee; Avenue of the Grande Armee; the Sacred Heart of Montmartre; the Eiffel Tower; the Place de la Concorde; the Tuilleries and the Arch of the Carrousel." Missouri The silent version of part of "Paris" listed below

Paris. 11min 16-sd-\$24 1932 Burton Holmes 914.436

Described by Ernest R. Clark "Viewing Paris from a river boat as we glide along the Seine; past the Isle de la Cité—under Pont Neuf—on to Notre Dame. We visit the sidewalk cafes and occupy ourselves with glasses, bottles and ices. Then to the great food market, the philatelic bazaars, the flea market and the Foire Aux Croutes. . The Arc de Triomphe, the Unknown Soldier's Tomb, a glance down the Champs Elyssee. The Eiffel Tower; the Place de la Concord where stood the guillotine. . Many other points of historic interest are visited."

Paris markets. ¼R 16-si-\$5 Burton Holmes 914.436

Included in "Paris" listed above
"Market day in Paris; a visit to the
great food market; the Philatelic Bazaar or
stamp collector's paradise; the Flea Market, and the Foire Aux Croutes where unknown painters sell masterpieces direct to
connoisseurs." Colorado

914.5 Italy

Venice. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ. 914.5

"Picture of the city of islands, Queen of the Adriatic. The Grand Canal with its gondolas, the Bridge of Sighs, the art and history of the ages concentrated in the Church of Saint Mark, where the doves swoop at feeding-time, the grim hulks of captured battleships in the harbor, and the sunset from the Palace of the Doges." Producer

Guide

914.6 Spain

In old Granada. 34R 16-si-\$17.50 Burton 914.6 Holmes

The one time Moorish City. Gyrdwellings. Alhambra Hill; River Court of Myrtles and Lions Gypsy cave liver Darro.

old Madrid. (Traveltalks) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1931? 10min 16-In old Madrid. Fitzpatrick

Pictures of the people and a contrasting of the old architecture with the new sh-c Guide

Mediterranean mecca. (Port o' call ser.) 10min 16-si-sd-\$20, \$25 35-si-sd-nf-\$35, \$42.50 1934 Imperial distributing corp. 914.6

Gives scenes in Madiera, Gibraitar and Palma de Mallorca. Includes a marimba orchestra. Deane H. Dickson is the author and narrator jh-sh-c

914.71 Finland

Finland. 15min 16-si-\$24 1935 Eastman

well as lumber and pulp industries. Other items illustrated in this film are water power, country life, dairy industry, canals, athletics, winter sports, power, country life, dairy industry, canals, salmon fishing, athletics, winter sports, and views of the ice breakers which keep the harbors open." Iowa univ.

el-jh Guide

914.8 Scandinavia

Children of Scandinavia. 6min 16-si-\$30 Kodascope

Produced by Post "Children of mountain and city in pic-turesque dress. Laplanders. Folk dancing."

914.81 Norway

Norwegian sketches. 1R 16-sd-\$30 Gut-914.81 lohn

A scenic reel of Norway showing the king's palace, fjords, towering mountains, stupendous glaciers, and a country wed-

914.85 Sweden

Sweden. 15min 16-si-\$24 1934 Eastman 914.85

Mining activities north of the Arctic; Lapps and their herds of reindeer; logging; native costumes and customs in rural dis-tricts; Stockholm; tomb of John Ericsson; University at Uppsala; Göta canal; Göte-borg; ruins at Visby; estates of nobility; winter and summer sports jh Guide

914.89 Denmark

Denmark. 15min 16-si-\$24 1934 Eastman 914.89

"Typical farm life in Denmark, the man-ufacturing of matches, chocolate candy, and Danish porcelain. Also, views of the

capital, various castles, including Kronborg Castle at Elsinore—the scene of Shakes-speare's 'Hamlet.''' Missouri el-jh Guide

914.92 Netherlands

Beside the Zuider Zee. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ. 914.92
"In the little village of Volendam where this picture was made, the natives still maintain the customs and wear the quaint costumes of the Holland of long ago, Volendam is veritably a 'Spotless Town.' Even the streets are scrubbed until they are as clean as the tile kitchens." Producer

Jh Guide

Canals and streets of Amsterdam. 1/4 R
16-si-\$5 Burton Holmes 914.92
"The Dutch Metropolis; the Royal Palace; the old Mint Tower." Producer
A silent version of part of "Holland and the Dutch" listed below

Children of Holland. 6min 16-si-\$30 Kodascope

Produced by Post Children in Volendam at work and at play. Also a visit to Marken, a small island nearby, where slight differences in tumes are noted

Going to Volendam. ¼R 16-si-\$5 Burton Holmes 914.92

"Steamboats, launches and sailboats on Holland's liquid highways. Volendam, be-side the Zuider Zee and the Volendamers." Producer

A silent version of part of "Holland and the Dutch" listed below

Holland and the Dutch. 11min 16-sd-\$24 1932 Burton Holmes 914.92

Described by Ernest R. Clark "Amsterdam, the Royal Palace, the diamond cutters—Volendam, liquid highways, children, wooden shoes and 'bloomer pants'—Alkmaar and its cheese market,—the Isle of Marken." Producer

of Marken. ¹/₄R 16-si-\$5 Burton Holmes 914.92

"Tourists arriving in the village; nar-row ways; wash-day; full skirt and queer looking hats; hay making." Producer A silent version of part of "Holland and the Dutch" listed above

Little Dutch tulip girl. (Children of all lands ser.) 1R 16-si-\$24 35-si-nf-\$60 1929 Films of commerce 914.92

Produced by Pathe. Madeleine Brandels

Produced by Patne. Madelente is the author Falling asleep a little American boy dreams of a little Dutch girl who is dressed in her native costume. With her he visits the Hague, Aalsmeer where he is shown the art of tree clipping, Leiden, the Isle of Marken and the famous tulip and cheese industries of the Netherlands. He sees Dutch children at play and in school and learns why Holland has dikes el-jh-sh

914.93 Belgium

Beautiful Bruges. 1/4 R 16-si-\$5 Burton

Scenes in the city of many bridges and many canals, narrow alleys and broad boulevards of water. A silent version of part of "Belgium—the beautiful" listed below

Belgian cities. 1R 16-si-\$25 35-si-nf-\$75 914.93 Harvard

"Presents a brief survey of Belgium's leading cities, each distinct from the other in historical background. Bruges is medieval in spirit with its canals, quaint streets, buildings, and its lace-making. At Ostend, there is the fishing fleet sailing out at dawn, and the pleasure beaches. Antwerp on the Scheldt is chiefly commercial, ranking as one of the most important ports of Europe. Brussels, the capital, is centrally located between the Flemish lowlands and the higher, French-speaking south. Liège with its industrial smoke and steam presents a more modern but equally artistic picture." Producer

Belgium-the beautiful. 11min 16-sd-\$24 1932 Burton Holmes

Described by Ernest R. Clark
"Its important cities, its picturesque canals and its country life are presented...
Brussels, its palaces, gardens and people—Bruges, the city of bridges, a quaint dreamy town of old Belgium—Rural Belgium, straight highways, dog-carts, fertile fields and windmills." Producer

¹/₄R 16-si-\$5 Burton Bustling Brussels. Holmes 914.93

King Albert's palace, the Brouse, boule-vard life, the Palace of justice, the flower market and the old Hotel de ville A silent version of part of "Belgium— the beautiful" listed above

In rural Belgium. 1/4R 16-si-\$5 Burton 914,93

"Belgium highways lined with fine trees. Calm canals and windmills hinting of Holland." Producer land." Producer
A silent version of part of "Belgium—the beautiful" listed above

914.94 Switzerland

Village life in Switzerland. 1R 16-si-apply 914.94 Edited pictures Scenes of hidden mountain towns and of some bordering the Swiss lakes

914.96 Balkan states

Children of the Balkans. 8min 16-si-\$30 Kodascope 914.96

Produced by Post
"Armenian, Albanian, Roumanian, Bulgarian, Serb, Greek, and Turk children
in native costumes, at work, at play, and
in school." California

914.98 Rumania

6min 16-si-\$30 Children of Roumania. Kodascope 914.98

Produced by Post "Boys and girls busy at home indus-tries." California

915 Asia

915.1 China

City that never sleeps. 20min 16-si-\$23.42 915.1 35-si-f-nf-apply Bray Habits, customs and people of China; the river; natives who live in boats; Chinese junks; walled city of Canton; native quarter, bazaars, pagodas; Sha-mien, where foreign residents live el-jh-sh

Kwang Chow Fu. 1/4R 16-si-\$5 Burton Holmes 915.1

reet processions and rickshas along waterfront of the ancient city of Street Canton

915.17 Mongolia

Mongols of Central Asia. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929 Films of commerce

Central Asiatic expeditions of the American museum of natural history, produced by Pathe

by Paulicus Shows "Shows characteristics of the Mongol, the purest type of Asiatic man; also dwell-ings, games, customs and clothes." Kansas

915.2 Japan

Four seasons in Japan. 40min 16-si-loan 80min 35-sd-nf-loan Japan tourist

915.2

Also available in a 2R version (20min 16-si-loan 30min 35-si-nf-loan)

"Reel one of this film depicts springtime in Japan with cherry blossoms, willow trees, artists sketching along the banks of a river, picnics, and boys' festivals. Reel two shows summer resorts with their swimming, sailboats, folk dances, and fire works. Autumn is represented in reel three by the sports season of Tokyo showing pole vaulting, discus throwing, fencing, and wrestling. Reel four shows the winter sports of skling, skating, the amusement quarters, and prayers in Meiji Temple for prosperity during the New Year. [Useful in] geography and nature study [classes]' Am. museum of nat. hist.

Japan and her problems. 2R 16-si-rent \$3 35-si-nf-rent \$6 Religious motion picture found.

Presentation of the background of Japa-ese life el-jh-sh-c nese life

Nikko. 10min 16-si-loan 20min 35-si-nfloan Japan tourist

A tour of Nikko showing streets and buildings, winter mountains, Lake Chuzenu and Kegon waterfall el-jh-sh-c

915.29 Formosa

Push car trails in Formosa. 34R 16-si-\$15 915.29 Burton Holmes "Hiking by rail into the wild interior; camphor stills; building bamboo houses." Producer

915.3 Arabia

Wanderers of the Arabian desert. vard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929 Films of commerce 915.3

Produced by Pathe
"The picturesque, hardy, war-like Arab
lives in the occasional stretches of fertile
country in the Arabian desert. Here highly skilled horsemen breed and school the

Wanderers of the Arabian desert—Cont. famous Arabian horse. Sheep and goats are herded in the hills. As they move from place to place, the women load the camels with goat-hair tents and unload them when the move is over. Spinning, weaving, bread-making, and other activities of these nomadic peoples are shown." Indiana. el-lh

915.4 India

Benares. 15min 16-si-\$24 35-si-nf-\$60 1927 Films of commerce 915.4

By Duncan Underhill
Hindu life along the Ganges in the
sacred city of Benares showing customs
and industries of these people who live
much of their lives on the holy steps
leading straight to heaven

Calcutta. 15min 16-si-\$24 35-si-nf-\$60 1927 Films of commerce

Scenes in and around Calcutta and the part that commerce, caste and tradition play in the lives of the inhabitants

jh

Gateway to India. (Traveltalks) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1931 915.4 Fitzpatrick

Shows Bombay with its race course, a performing bird, fisherwoman, drying of fish, and the royal elephants jh-sh-c

Hindu holiday. 15min 16-sd-\$30 Gutlohn 915.4

Showing Hindus as a fun-loving people their play and most ceremonious in heir worship

Kashmir, old and new. 15min 16-si-\$24 35-si-nf-\$60 1927 Films of commerce

Produced by Pathe
"The influence of tradition in the lives
of the inhabitants. Religious rites of both
Mohammedans and Hindus. The art of
paper-making as practised by the people
of Kashmir, contrasted with the new
schools which emphasize health with
scholarship." Distributor jh

Kipling's Mandalay. 4R 16-si-\$80 35-si-t-nf-\$120, \$140 Film classic ex. 915.4

"From Mandalay to Irrawaddy, the country, its people and colorful life pass in review." Missouri
"It is said that more elephants appear in this film than in any ever taken previously." Producer

Pageantry of India. 1R 16-si-\$15 Inst. cinema serv. 915.4

Produced by Urban
"Showing how the elephants and other
animals are bathed and decorated for the
pageantry of India. The Pageantry parade
is also shown." Colorado

915.48 Ceylon

Charming Ceylon. (Traveltalks) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1931 915.48 Fitzpatrick

Street and boat traffic of Colombo, win-nowing of rice, the Devil dance of Kundy, elephants, fishing boats and fishermen and a Singalese waiter are shown jh-sh-c Guide

Women workers of Ceylon. 15min 16-si-\$24 35-si-nf-\$60 1927 Films of com-915.48 merce

Produced by Pathe
"Everyday life of the Ceylonese women
and their many hardships. Cooking, laundering, caring for children and raising
the cocoa." Distributor

915.5 Persia

Grass. 19min 16-sd-apply Kodascope

915.5 Originally produced, by Paramount and is based on M. C. Cooper's "Grass." Also obtainable in a longer version (40min 16-sd_rent \$3)

The semi-annual migration of the Baktyari tribe in Persia. 50,000 people with their flocks and herds overcome great hardships to obtain life-sustaining grass. A beautiful and most interesting film

915.69 Palestine

Holy Land. 1R 16-si-\$15 Inst. cinema serv. 915.69

Produced by Urban "Jerusalem; Bethlehem and Gethse-ane; Haifa, Nazareth, Tiberias, Sea of mane; Haifa, Galilee.'' Wis Wisconsin

In hallowed paths. 1R 16-si-rent \$2 Religious motion picture found. 915.69 With colored slides of famous pictures of these events the rent is \$3.50
"Scenes in Palestine associated with outstanding events in the life of our Lord." Producer

el-Jh-sh-c

Paths in Palestine. 1R 16-si-sd-loan 35-sdf-loan Navy recruiting serv. 915.69

The United States Navy in the Holy Land showing scenes of the River Jordan, Sea of Gallilee, Jerusalem, Bethlehem and scenes of the crucifixion

Pilgrimage through Palestine. 15min 16-sd-\$30 Gutlohn 915.69

Many points of interest are shown in the Holy Land, among them Mt Carmel, Nazareth, Sea of Galilee, Jordan river, Dead Sea, Bethlehem, Jerusalem and the Mount of Olives

915.7 Siberia

Taming the Taiga. 2R 16-si-\$60 Bell & Howell

"The Ude people are a lost tribe in the Ussurian region of Asia. The tribe lives mainly on finely sliced raw fish. The picture depicts the strange rites of the 'good and evil spirits' and the modern rites of a first movie showing. The work of the new cooperative society is shown, contrasted with the ancient heritage of witchcraft." Wisconsin

915.8 Afghanistan

Changing times in Afghanistan. 1R 16-si-\$30 Bell & Howell 915.8

"Only authorized recent picture of life in the long forbidden country during King Amanullah's time." Producer

Changing times in Afghanistan—Continued
"In the summer of 1928 a special expedition studied the land and its ways. The pedition studied the land and its ways. The film presents the customs and modes of the past; the innovations of the machine age; the human processes unfolding amid the mountains and the valleys; the monuments and ruins of ancient Afghanistan; the heterogeneous population; king, dervish, fakir, long-haired mountaineer, Mongol, Hindu." Wisconsin

"Primitive methods of agriculture are shown, likewise the towns; camel, buffalo, and elephant transport; ruins of ancient temples; and the surprisingly forced draft of modernity introduced by King Amanul-lah." Kansas

915.95 Malay Peninsula

Souvenirs of Singapore. 1/2R 16-si-\$12.50 Burton Holmes 915.95

"Harbor. Chinese stores. Hindu temple. Bazaars. Street scenes. Junks and lighters. Tapioca industry. Types of natives." California

916 Africa

Cairo to Capetown. 1R 16-si-sd-loan 35-sif-loan Navy recruiting serv.

"A visit to ports on the coast of Africa-with a running talk by the 'Globe Trot-ter.'" Producer

el-jh-sh-c

916.2 Egypt

Bazaars of Cairo. 1/4R 16-si-\$5 Burton Holmes 916.2

A day in the fascinating streets of Cairo. We see donkey carts, veiled women, bird cages carried on the head, bargain-hunting women, hard-fisted merchants and water venders

Calling on the sphinx. ¼R 16-si-\$5 Burton Holmes

The Sphinx is shown from several different points of view, along with excavated ruins near there

pt; land of the pyramids. (Travel-talks) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1931 Fitzpatrick **916.2**

A sight-seeing trip through Gibraltar, Alexandria and Cairo. Among the sights are the date palms, mosques, University of Cairo, the opera house, market place, camels, pyramids and the Sphinx

el-jh-sh Guide

916.3 Ethiopia

Ethiopia. 11min 16-si-sd-\$24, \$30 1936 Burton Holmes 916.3

Narrated by Harlow Wilcox. An outstanding film showing the nature of the country and its people, dealing with the history, various races, theory of government, economic peculiarities, living conditions, trades and religions. The present situation is considered and some of the Italo-Ethiopian war angle

916.4 Morocco

Found in Morocco. 15min 16-sd-\$30 Gutlohn 916.4

Shows Morocco, its market place and the handicrafts of the people, also Fez el-jh-sh-c

North Central Africa 916.6

Life in the Sahara. 15min 16-si-\$24 1932 Eastman 916.6

In this picture of Nomadic desert camp life and a journey by caravan to the oasis market place with its busy bazaars we see views of the milking of goats and sheep, grinding of grain, bread making, crushing of rock salt and weaving of camels' hair. We see a donkey train, baby camel, date palms, typical natives and street scenes and a Mohammedan mosque

ei-jh Guide

916.7 South Central Africa

East Africa. 5min 16-si-\$25 Deimer 916.7

"We see the beautiful harbor and primitive native life of Dar-es-salaam. Then to Zanzibar with its narrow streets and pecular native dwellings and out to the clove and cocoanut plantations. Mombasa is pictured with its unusual occupations and Swahili life." Indiana

est people of Central Africa. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 916.7 Forest people of Central Africa.

Produced by Pathe

Produced by Pathe

"Intimate study of the African pygmies, who have so seldom been photographed; their crude brush villages, and their skill at bringing down game with poisoned arrows. Negro women demonstrate their routine of daily domestic life, including the making of pottery. The men manufacture objects of iron by means of the crudest of processes. The typical negro dance at the end shows a striking parallelism to modern American steps." Distributor

el-ih-sh-c Guide

el-Ih-sh-c Guide

sai. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929 Films of com-Masai.

The Masai are a warlike tribe of East Africa who go in for cattle-herding. They build houses from cow-dung, drink blood and milk from living cows and indulge in extraordinary military callsthenics

jh-sh-c Guide

917 NORTH AMERICA

Electric ship. 2R 16-si-loan 35-si-f-nf-loan General electric

Also obtainable in a 35mm one reel sound version

"A trip from New York to San Francisco aboard a new all-electric liner 18.8. Virginia, Shows many enjoyable and interesting features of the trip and also many interesting features of the electric ship equipment." Illinois

el-jh-sh-c

917.1 Canada

Falling waters. (Seeing Canada ser.) 8min 16-si-\$10.65 35-si-nf-apply Canadian gov't. 917.1

"A scenic film depicting many of Canada's most picturesque waterfalls with descriptive poetic titles from the works of famous nature poets. [Useful in English and geography [classes]" Am. museum of nat. hist. Jh

Maritime provinces. (Seeing Canada ser.)
5min 16-si-\$8.52 35-si-nf-apply Canadian gov't.
917.1

dian gov't.

"Glimpses of many of the outstanding features of the Provinces of Nova Scotia, New Brunswick and Prince Edward Island. Included are views of the cities of Halifax, Charlottetown, St. John, Fredericton and Moncton, the scenic beauties of Cape Breton, Nova Scotia's south shore, the Annapolis Valley and the Restigouche Valley and glimpses of fox farming in Prince Edward Island and hunting and fishing in New Brunswick." Producer

jh

Robson trail. (Seeing Canada ser.) 6min 16-si-\$9.15 35-si-nf-apply Canadian gov't. 917.1

"A scenic travelogue commencing at Winnipeg, Manitoba, through Wainwright National Park and Wild Life Refuge, Jasper National Park, and along the famous Skeena River to Prince Rupert, B.C." Producer

When day is done. (Seeing Canada ser.)
5min 16-si-\$6.90 35-si-nf-apply Canadian gov't.
917.1

"A picture poem in which the camera has caught and woven together the glories of several Canadian sunsets." Kansas

917.11 British Columbia

Camp fires among snow peaks. (Seeing Canada ser.) 14min 16-si-\$10.95 35-si-nf-apply Canadian gov't. 917.11

"Scenic film of a journey up the Bow Valley into Yoho National Park and Wilcox Pass, showing how alpinists at the top of the world make this ascent into territory hitherto unexplored." Producer

Canada's Pacific gateway. (Seeing Canada ser.) 5min 16-si-\$7.77 35-si-nf-apply Canadian gov't. 917.11 "A visit to the great Canadian city of Vancouver." Utah el-jh

City of sunshine. (Seeing Canada ser.) 10min 16-si-\$7.44 35-si-nf-apply Canadian gov't. 917.11

"A travelog of Canada's evergreen city, Victoria, British Columbia, famed for its flowers and scenic attractions." Colorado "Beacon Hill Park, the Mayor's Garden, the Dominion Observatory . . . and the Butchart Gardens." Producer

Tenderfoot trails. (Seeing Canada ser.)
5min 16-si-\$8.76 35-si-nf-apply Canadian gov't.
917.11

"Three city men who sought something new in the way of vacations on a 'Dude Ranch' in the heart of the Canadian Rockies, In addition to countless glimpses of mountain scenery the film contains...

action views of cowboys riding wild, bucking horses, trail riding, angling for rainbow and cut-throat trout in glacial lakes and streams, a visit to a Cree Indian encampment and other . . . features." Producer

Through the Norway of America. (Seeing Canada ser.) 6min 16-si-\$9.66 35-si-nf-apply Canadian gov't. 917.11

"The water cruise between Vancouver and Prince Rupert along the rugged picturesque coast of British Columbia with glimpses of places and things to be seen en route." Producer

Yoho. (Seeing Canada ser.) 5min 16-si-\$7.74 35-si-nf-\$15.48 Canadian gov't. 917.11

Scenes of the beautiful valley which bears the name of the Indian word for surprise and wonder—Yoho—and of the Emerald Lake region in Yoho Park, British Columbia sh

917.12 Northwest territories

Down north. (Seeing Canada ser.) 8min 16-si-\$10.59 35-si-nf-apply Canadian gov't. 917.12

"The first film ever produced of the MacKenzie River district in Northern Canada, containing glimpses of the great waterway which flows north into the Arctic Ocean together with views of farming, oil-drilling, etc." Producer

917.123 Alberta

Bit of high life. (Seeing Canada ser.) 6min 16-si-\$8.85 35-si-nf-\$44.04 Canadian gov't. 917.123

"Scenic film following the journeys of alpinists on unblazed trails near Lake Louise, depicting the wonders of Bow Lake, and finally taking the traveller after many adventurous climbs into the Columbia ice area and back to Laggan." Producer "("Useful in geography [classes]" Am. museum of nat. hist.

Daughter of the glaciers. (Seeing Canada ser.) 10min 16-si-\$9.36 35-si-nf-\$18.72 Canadian gov't. 917.123

"Cold, clear, beautiful Maligne Lake, set in a mountainous region, fed by glaciers. The film takes you around the lake by boat and verifies the words of the artist who said, "Where others are chamber music, Maligne is a great orchestra." Colorado Jh

Kicking horse trail. (Seeing Canada ser.)
5min 16-si-\$7.95 35-si-nf-apply Canadian gov't.
917.123

"Opening with the incident which gave the Kicking Horse Pass its name in 1858, the picture follows the new motor road from Lake Louise to Golden. . Natural Bridge, Snowpeak Avenue, the Great Dlvide and Wapta Falls." Producer

Leaves from a ranger's note book. (Seeing Canada ser.) 6min 16-si-\$9.21 35-si-nf-apply Canadian gov't. 917.123

"Experiences of a Rocky Mountain Ranger in beautiful Jasper National Park in Canada. Very beautiful scenery is shown."

Motoring in cloudland. (Seeing Canada 6min 16-si-\$9.36 35-si-nf-apply ser.) Canadian gov't.

"A travelogue of the new Banff-Winder-mere highway through the central Cana-dian Rockies." Colorado

Ride 'em cowboy. (Seeing Canada ser.) 5min 16-si-\$11.04 35-si-nf-apply Cana-917.123 dian gov't.

"An excellent picture of the famous Calgary Stampede held annually in the 'City of the Foothills.'" Utah Ih

Top o' the world. (Seeing Canada ser.) 6min 16-si-\$9.51 35-si-nf-apply Cana-917.123 dian gov't. "Trail riders and alpinists in Mount Robson section of Jasper National Park, Alberta." Colorado

(Seeing Can-Valley of a hundred peaks. ada ser.) 8min 16-si-\$11.16 35-si-nfapply Canadian gov't. 917.123 "A trail ride into the Tonquin Valley... of Jasper National Park, Alberta, with... views of spectacular mountain scenery." Producer

ere beauty dwells. (Seeing Canada ser.) 6min 16-si-\$9.90 35-si-nf-apply Canadian gov't. "Pictures of Jasper National Park. The trip from Jasper Lodge to Maligne Lake is beautiful. In addition to views of the famous Maligne Trail, Maligne Canyon, and Medicine Lake, this film depicts the beauties of Maligne Lake." Indiana "¡Useful in geography and nature study [classes]" Am. museum of nat. hist.

ih

917.13 Ontario

Canada's queen city. (Seeing Canada ser.) 8min 16-si-\$9.51 35-si-nf-apply Cana-917.13 dian gov't. "Glimpses of Toronto's chief points of interest, including views of the annual Canadian National Exhibition." Utah

City at the foothills. (Seeing Canada ser.)
5min 16-si-\$7.65 35-si-nf-apply Canadian gov't. "The romantic city of Calgary with its lore of the cow-camp and the trapper." Utah "Glimpses of the world-famous 'Stampede' and the Turner Valley oil-fields." Producer Jh

Region of romance. (Seeing Canada ser.) 8min 16-si-\$11.01 35-si-nf-apply Canadian gov't. 917.13 "Beautiful scenes of Lake of Bays in Highlands of Ontario, Muskoka River, scenes of Wawa, Norway Point, Bigwin Island." Minnesota

With dog team and snowshoes. (Seeing Canada ser.) 6min 16-si-\$10.14 35-si-Ganadian gov't. 917.13 "Depicting the experiences of a winter vacation party in the Lake Penage dis-trict." Producer

917.14 Quebec

Canada's metropolis. (Seeing Canada ser.) 12min 16-si-\$10.34 35-si-nf-apply Canadian gov't. 917.14

"Not only one of the largest and most important cities but the second largest oceanport on the North American continent, Montreal, the metropolis of Canada, with a history indelibly linked with the development of the New World and its old French-English atmosphere, has many and varied features of interest. This short travelogue offers glimpses of many of the highlights' of this historic and cosmopolitan city." Producer

Laurentian lures. (Seeing Canada ser.) 8min 16-si-\$10.83 35-si-nf-apply Cana-917.14 dian gov't.

"The experiences of a party of anglers in their quest for speckled trout, and the story of a unique wager with a surprising climax." Producer

Province of Quebec. 15min 16-si-\$24 1932 917.14 Eastman

"Shows the Saguenay River region of the Laurentian Uplands—pulp and paper mills, backwoods life; the Lower St Lawrence—Cape Gaspé, the fishing industry, Murray Bay, Ste. Anne de Beaupré, Quebec, and asbestos mines; the Upper St. Lawrence—picturesque French-Canadian 'habitants,' and Montreal." Producer
el-jh Guide

Rambles in Gaspesia. (Seeing Canada ser.) 8min 16-si-\$11.13 35-si-nf-apply 917.14 Canadian gov't.

"Jutting out into the Gulf of St. Lawrence like the claw of a giant lobster, lies Gaspe, the Normandy of Canada. A region of sea-scarred cliffs, rolling hills and quiet pastoral scenes, this land of striking scenery, picturesque Quebecois fisher-folk and quaint customs, is unlike any other spot in all North America. [Useful ing geography [classes]" Am. museum of nathist.

River of deep waters. (Seeing Canada ser.) 6min 16-si-\$9.24 35-si-nf-apply Canadian gov't. 917.14

"Depicts the steamer trip from Quebec to quaint Chicoutimi and offers glimpses of Murray Bay, Tadousac, the famous Capes, and other features that have made this river famous for its historic associations and scenery." Producer

917.15 New Brunswick

Salmon angling on the Restigouche. (See-ing Canada ser.) 5min 16-si-\$8.85 35-si-nf-apply Canadian gov't. 917.15

"Depicts a trip to this lovely stream and includes, in addition to angling salmon, glimpses of wild life in Northern New Brunswick." Massachusetts el-jh-sh-c

917.16 Nova Scotia

City by the sea. (Seeing Canada ser.)
5min 16-si-\$7.98 35-si-nf-apply Canadian gov't.

"Halifax, the capital of Nova Scotia, one of Canada's greatest ports, and a city of much interest." Utah

Land of Evangeline. (Seeing Canada ser.) 7min 16-si-\$9.84 35-si-nf-apply Canadian gov't.

dian govt.

"A scenic travelogue of the Minas region of Nova Scotia immortalized by Longfellow's epic poem, with glimpses of the historic spots in old Acadia as they appear today. The general countryside, apple orchards, the village of Grand Pré, statue of Evangeline, the Old Well, the ancient dykes, the pasture lands and many other beautiful scenes. [Useful in English, history and geography [classes]" Am. museum of nat. hist.

el-]h-sh

gic Minas. (Seeing Canada ser.) 5min 16-si-\$7.38 35-si-nf-apply Canadian Magic Minas. 917.16 gov't.

"A scenic travelog of the historic Acadian district of Nova Scotia." Missouri

I sunshine and sea-breezes. (Seeing Canada ser.) 5min 16-si-\$8.31 35-si-nf-(Seeing apply Canadian gov't.

"A scenic travelogue of the southwestern section of Nova Scotia, including views of Digby, Bear River and the quaint French Shore." Producer

Random glimpses of Cape Breton. (Seeing Canada ser.) 6min 16-si-\$9.15 35-si-nf-apply Canadian gov't. 917.16

"A scenic film of the little known beauty spots and historic places of Canada's most easterly territory—Cape Breton, which includes views of historical Louisburg, the Lingan Rock, the rugged northern section of the island around Ingonish and the beautiful Bras d'Or Lake district." Producer

Seaside summerland. (Seeing Canada ser.) 5min 16-si-\$8.97 35-si-nf-apply Canadian gov't.

"Along Nova Scotia's south shore. Yar-mouth. Fishing. Shelbourne. Liverpool. Bridgewater. Along La Have River. Petite Riviere. Lunenburg and Chester." California

917.2 Mexico

Mexico. 15min 16-si-\$24 1930 Eastman 917.2

"From seacoast to snow-crowned mountain tops, native life and activities illustrate the latent possibilities, as well as the progress, of the country of Mexico." Kansas el-Jh-sh-c Guide

917.28 Central America

Central America. 15min 16-si-\$24 1930 Eastman

"Presents a study of the peoples, cities, industries and resources of Central America. Shows urban streets, natives, ox teams, an open market and a railroad station; also typical luxuriant vegetation, and mahogany forests. An animation points out the mahogany area. A timber scout locates large trees for cutting; a clearing is made; a tree is felled, cut into lengths, hauled to a stream, and floated to the shipping port. The animation continues, showing the banana area. Jungle land is cleared, banana buds are planted, young plants are shown, small bananas begin to form, and green fruit is gathered for shipment.

Another animation locates the cacao and coffee areas. Cacao pods are collected, coffee berries picked, coffee and bananas loaded for shipment." Producer el-jh Guide

In the path of the galleons. 40min 16-si-loan 35-si-nf-loan 1935 Grace line

917.28 A James A. Fitzpatrick travel picture. With special emphasis on Guatemala this shows the Grace line cruise from New York thru the Spanish Americas to Mexico and California

917.29 West Indies

From Haiti to Trinidad. 15min 16-si-\$24 1930 Eastman 917.29

'Presents Haiti, Puerto Rico, the Lesser Antilles, and Trinidad. Views of West In-dian native life, important cities, the vol-canic island of Martinique, the British col-ony of Barbados, and industries such as coffee, asphalt, sugar.' Producer el-jh Guide

From the Bahamas to Jamaica. 1R 16-sirent 50c Church

"The American Mediterranean. Views include the harbor of Nassau; sponge industry; Havana and harbor; sugar cane and tobacco industries; Jamaican native life and industries." Indiana

From the Bahamas to Jamaica. 15min 16si-\$24 1930 Eastman 917.29

"Typical West Indian views, Roaring River, map animations. The Bahamas, Nassau, harbor, street scenes, tea gardens, sponge fishing, sorting and shipping sponges. Cuba, Morro Castle, Havana, capitol building, old Havana, highway, sugar and tobacco culture. Jamaica, Kingston, Arcade, Spanish Town, native life, banana plantation, native market." Ohlo el-jh Guide

Isles of romance. (Seeing Canada ser.) 9min 16-si-\$11.67 35-si-nf-apply Cana-917.29 dian gov't.

"A boat trip from Canada through the isles of British West Indies to Britain's only territorial possession in South America—British Guiana. Shows Bermuda, St. Kitts-Nevis, Antigua, Montserrat, Dominica, St. Lucia, Barbados, St. Vincent, Granada, Trinidad, and Demerara." Kansas

Isles of sunshine. 1R 16-si-loan Canadian 917.29 nat. ry.

"Depicts an ocean cruise to many in-teresting islands: Bahamas, Cuba, Haiti, Jamaica, Trinidad, Barbados, and Porto-Jamaica, Trin Rico." Illinois

917.295 Puerto Rico

Puerto Rico. 15min 16-si-\$24 1931 East-917.295

"Indicates development of this island under United States control, and shows how location and climate make it a rich producer of agricultural raw materials. The film units are: San Juan; Schools and Colleges; Rural Life: Agricultural and Industrial Products." Producer el-jh Guide

917.299 Bermuda

Beautiful Bermuda. 16min 16-si-\$20 1934 Burton Holmes 917.299

Hamilton and St George are located on animated maps and from the air. The Tourist Special passes through great slashes of coral rock which is seen later being sawed into blocks. There are views of St Peter's church built in 1620 of coral rock and also modern buildings of the same material. An air view over the ocean shows hundreds of coral reefs and coral in many forms is shown below the surface of None Such Island. In the water swim turtles, vellow spotted grunts, glant lobsters and a sea horse drifts slowly past

917.3 UNITED STATES

917.4 North Atlantic states

Middle Atlantic states. 2R 16-si-apply 35-si-nf-apply Soc. for visual educ. 917.4

si-nf-apply Soc, for visual educ. 917.4

"Cover the region formed by the Atlantic Coastal Plain and the Appalachian Highlands. They picture the resources which have made this region the busiest on earth, with great lumbering, manufacturing, mining and farming industries and unrivaled trade and commerce. Harbors like that of New York; natural trade routes such as Delaware Water Gap, the Mohawk Valley, the Hudson River, etc.; the mountains and lakes of the Adirondack and Catskill regions, are visualized in a way to bring out the close tie between geography and history." Producer

Guide

New England states. 2R 16-si-apply 35-si-nf-apply Soc. for visual educ. 917.4

ni-apply Soc. for visual educ. 917.4
"Illustrates the distinctive physical features of New England, and their relation to the industrial and commercial activities of the region. Maine's rockbound coast, Boston Harbor, the Berkshires, the valley of the Connecticut, Lake Champlain, etc., are shown; typical cities like Boston, Fall River, Hartford, Providence; typical industries like lumbering, quarrying, pasturing sheep and cattle, shipping apples, fishing, lobster-catching, etc.; typical historic spots like Lexington and Concord, Plymouth Rock and Pilgrim's Monument." Producer Guide

917.47 New York state

Mohawk valley. 15min 16-si-\$24 1927 917.47 Eastman

From Indian explorer to canal builder and railroad engineer, the Mohawk valley has been used as a route to the land beyond the Appalachians. The Valley in pioneer days and today. A trip showing the many evidences of industrial activity and agricultural wealth, making stops at principal cities along the route

el-Jh Gulde

Study of Niagara. 30min 16-si-\$45 35-si-nf-\$100 1922 Soc. for visual educ. 917.47

"The geography and beautiful scenery of the region and . . . some idea of the geologic history of the Falls and Gorge. . . Chalk sketches drawn by Dr. W. W. At-

wood, picture the river from Lake Erie to Lake Ontario, a section of the Falls, and the Whirlpool, and show how the Falls have worked back through the Gorge. Motion pictures visualize noted scenic features, and special airplane views give an . . . idea of the relative positions of the various points of interest." Producer

Guide

Winter witchery of Niagara. (Seeing Canada ser.) 5min 16-si-\$6.24 35-si-nfapply Canadian gov't. 917.47

"Niagara in winter dress is incomparably beautiful. This film depicts the glories of the great cataract under the Frost King's magic mantle when its picturesque environs are transformed by frozen spray into weirdly beautiful and fastastically shaped ice formations." Producer "(Useful in geography and nature study [classes]" Am. museum of nat. hist.

Jh

917.471 New York City

New York impressions. 1R 16-si-\$25 35-si-917.471 nf-\$75 Harvard

"Consists of an artistic rather than a geographical presentation of New York City. . Scenes of deep streets, waterfronts, bridges, boats, smoking chimneys, skyscrapers, and other feats of modern architecture and engineering. The paterns of the buildings seen thus in review, display a new type of beauty peculiar to twentieth century construction and design." Producer

Twenty-four dollar island. 15min 16-si-\$24 35-si-nf-\$60 1927 Films of commerce

"Impressionistic views throughout the Manhattan Island, showing the industry and commerce, architecture and business life of New York City." Producer jh-sh

917.5 Southeastern states

Boone trail. 15min 16-si-\$24 1931 Eastman

man

"Appalachian Valley, Shenandoah Valley, Natural Bridge, Southern mansion, Big Stone Gap, home cured hams, turkeys, saw mills. Cumberland Gap: coal outcrops, cement plant, lumbering, a mountain cabin—spinning—weaving—basketry — pottery, typical school, town of Cumberland Gap, Middlesboro. Blue-Grass Kentucky. Along the Cumberland river, harvesting to bacco, hemp, fine horses, a blue-grass pasture, Man O' War, dairy cattle, Lexington, Frankfort, the Capitol." Ohio

el-lh Guide

el-Ih Guide

New South. 15min 16-si-\$24 1932 East-917.5 man

"Traces the rapid progress of the New South: its agricultural products—cotton, tobacco, rice, early vegetables, fruits, nuts; row materials—marble, aluminum ore (bauxite), coal, limestone, iron; and water power for the paper, cotton-goods and other industries. Birmingham, Mobile, New Orleans, and Miami are shown." Producer el-Jh Gulde

Old South. 15min 16-si-\$24 1932 East-917.5

"The land, people, products, communications, plantation life. Animated maps, Virginia coastal landscape, flood plain of Mississippi, mountains of North Carolina. Scene in small town. Negroes cultivating peanuts, tobacco fields, sugar culture, rice culture, cotton culture. The ox cart, Dismal Swamp, canal boat, river steamer. Plantation home, negro pastimes, fox-hunting, southern hospitality." Ohio ei-jh Guide

Southern states. 2R 16-si-appl apply Soc. for visual educ. 2R 16-si-apply 35-si-nf-

"Motion pictures show the level, sandy belt bordering the sea, the Florida Keys, the foothills of the Appalachians; coalmining in the Birmingham district; the cultivation of cotton, sugar-cane, rice, peanuts and various fruits; lumbering in the famous cypress forests; the manufacture of turpentine." Producer

917.52 Maryland

Chesapeake bay. 15min 16-si-\$24 1930 917.52 Eastman

Evolution and development of the tide-water area. Animated maps show how the gradual sinking of land formed Chesapeake bay. There are views of historic James-town. Portsmouth and Norfolk are located. Some of the methods used in the oyster and soft crab industries are outlined. Scenes in Baltimore and of the Naval academy at Annapolis are shown el-jh Guide

917.53 Washington, D.C.

Carry on. 2R 16-si-loan 35-si-nf-loan U.S. agric. 917.53

An Extension service film "Scenic film of Washington, D.C., show-ing the experiences of members of the 4-H Club on a national encampment." Colorado

Washington—the capital city. 15min si-\$24 1930 Eastman 91 917.53

si-\$24 1930 Eastman 917.55
"Designed particularly for use in geography classes, this film will also be helpful in classes in history and American government. A series of dissolves shows
Washington from the air; the District of
Columbia, and the Capitol area are located
on a relief map; views follow of the Capitol and grounds, the Library of Congress,
Pennsylvania Avenue, and the Columbus
Memorial, Many other interesting scenes in
Washington are also included. The film has
been divided into the following units: The
Capitol area, White House section, the
Mall." Iowa univ.

el-jh-sh-c Guide

917.55 Virginia

Historic scenes along the Mount Vernon memorial highway. 1R 16-si-loan 35-si-nf-loan 1933 U.S. agric. 917.55

A Bureau of public roads film
"Places of scenic beauty and historical
interest along this beautiful highway from
Washington, D. C., to Mount Vernon. This
highway was built in commemoration of
the 200th anniversary of the birth of
George Washington." Iowa state college
el-ih el-jh

Virginia—the Old Dominion. 15min 16-si-\$24 1932 Eastman 917.55

"Deplcts a region rich in geographic, commercial, and historic interest. Surveys 'Tidewater Virginia' with its cities, land and sea products; 'Piedmont Virginia'; the beautiful 'Blue Ridge' country; the 'fall line' cities and crops; the 'Greater Valley' and its rich tributaries, showing scenic wonders, waterfalls, forests, and pulpwood products." Producer 'May well be used in geography and history classes." Indiana Gulde

Gulde

917.63 Louisiana

New Orleans. 15min 16-si-\$24 1929 East-917.63

"Views of the city, including French quarter, at the wharves, loading cargoes of bananas, coffee, and other South American products. Loading cotton for export." In-

"A great amount of useful material has been correlated in this film on a city which has become a central point for the com-merce of the Americas." Wisconsin ei-jh Guide

917.7 North central states

Central plains. 2R 16-si-apply apply Soc. for visual educ. 2R 16-si-apply 35-si-nf-917.7

apply Soc. for visual educ. 917.7

"Agriculture—the most important industry of the Central Plains—is studied via motion pictures taken in various sections. A type study of modern farming methods is included. Other pictures show stockraising, dairying, poultry farming, etc. There are intimate glimpses of coal and copper mines; huge ore boats; logs from the forests of Wisconsin, Michigan and Minnesota reaching the lumber mills; the famous limestone quarries of Indiana; dam and power-house at Niagara." Producer Guide

917.8 Western states

Great plains. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ. 917.8

"The region between the valley of the Mississippi and the foothills of the Rockies. . Sheep and cattle on the range and en route to eastern markets; activities on a modern ranch; cowboys in a roundup. . Views . . of Denver, the great railroad center of the West, and panoramas of the peaks and foothills of the Rockies." Producer Guide Gulde

Rio Grande. 15min 16-si-\$24 1930 East-917.8 man

"The Rio Grande River, first as a boun-"The Hio Grande Hiver, first as a boundary between Mexico and the United States, then showing the people living along the 1300 miles of its course, also irrigation and fruit growing along the lower Rio Grande. The film is divided in the following units: The source of the Rio Grande; the upper Rio Grande; the middle Rio Grande; and the lower Rio Grande." Iowa univ. Guide

Roads in our national parks. 1R 16-si-loan 35-si-nf-loan 1927 U.S. agric. 917.8

A Bureau of public roads film "A panorama of the service performed by the Bureau of Public Roads in constructing modern highways in our western national parks." Producer

Roads in our national parks—Continued
"The scenic wonders of Yosemite, Glacier, Rocky Mountain, Mount Rainier,
Mount Lassen, and Mesa Verde National
Parks make this film one of unusual beauty
and interest." Illinois

Rocky mountains. 1R 16-si-apply 35-si-nf-917.8 apply Soc. for visual educ.

"Visualizes the rich deposits of ore-vast areas of forest—abundant pasturage for sheep—fertile valley farm lands and fruit orchards. The Royal Gorge of the Arkansas, the Black Canyon of the Gunni-son River, Rocky Mountain National Park, Glacier Park and Yellowstone, are all shown." Producer
"Arranged for students of geography and

shown." Producer
"Arranged for students of geography and
its material follows the school requirements for the study of the Rocky Mountains. This film is suitable for general
study of Mountain life in which it is desired to give concepts of mountain features, methods of travel, and animal life."
Indiana Guide

She's wild. 1R 16-si-loan 35-si-nf-loan 1920 U.S. agric.

A Forest service film
"Cowboys on the western cattle ranges;
with 'broncho busting,' roping and tying,
and other exhibitions of horsemanship and
range prowess at a cowboy gathering. Indian dances." Producer

917.86 Montana

Glacier national park. 12min 16-si-\$18 1930 917.86 Eastman

"Hiking across a glacier, views in the park, glaciated valleys. Iceberg Lake. Glacier Park flowers, beavers, birds, woodchucks, mountain sheep. An Indian camp, Indian life. Glacier Park Hotel, Swift-current Lake, a Park dining room, chalets, a trail party, tent camp, mountain climbing, crossing a crevasse, trout fishing." Ohio el-jh Guide

917.87 Wyoming

Bird and animal life in Yellowstone park. 1R 16-si-\$25 Northern Pacific ry. 917.87

"Antelope, osprey, duck, nutcracker, beaver, elk, buffalo, bear, gull, pelican, badger, and deer. Geysers and other nat-ural wonders." California

Geysers of the Yellowstone. 1/4R 16-si-\$5 Burton Holmes 917.87

"The greater and lesser geysers spout and the comical 'paint pots' gurgle. Old Faithful performs in her most glorious manner." Producer "Probable origin of geysers; Norris Basin; Mud Geyser; Old Faithful; Cody Road; Pike's Peak." Iowa state college

Magic Yellowstone. 18min 16-si-\$25 35-si-f-nf-\$40 1930? Northern Pacific ry. 917.87

"Shows the natural wonders that are to be found in Yellowstone: waterfalls, Gardiner Canyon, Golden Gate, hot spring teraces, Punch Bowl, mud volcances, Old Faithful in eruption, Castle Geyser, Grand Canyon, Yellowstone Falls. It also is a splendid study of birds and other animals to be found there: eagle, pelican, tern, buffalo, bear, deer, marmot, badger. [Useful in] geography, nature study and physiography [classes]" Am. museum of nat. hist.

Yellowstone national park. 15min 16-si-\$24 917.87 1930 Eastman

"Shows molten lava, obsidian cliffs, hot springs, mud volcanoes—illustrates and explains action of geysers—Yellowstone Canyon—pictures bird and animal life—outlines the work of the rangers." Producer "Especially valuable in geology and geography classes." Massachusetts

Guide

917.88 Colorado

Outdoors in Colorado. 3R 16-si-loan 1935 Chicago, Rock island & Pacific ry. 917.88

Contents: Reel 1, Rocky mountain na-tional park; reel 2, Pike's peak region and San Isabel national forest; reel 3, Mesa Verde national park—cliff dwellings, etc.

917.9 Pacific coast states

Pacific mountains and lowlands. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ.

"Designed to show some of the main features of a land which, although settled comparatively recently, has developed important activities, great lumbering centers, a thriving fishing industry, valuable agricultural areas, and a large commercial and industrial life. There are motion picture studies of its great seaports; glimpses of its industries; views of famous scenic features; and other features that emphasize the economic importance of the Pacific Mountains and Lowlands to the nation." Producer Guide

Roads from surf to summit. 1R 16-si-loan 35-si-nf-loan 1925 U.S. agric. 917.9

A Bureau of public roads film
"Scenic wonders of the national forests
of the Pacific Coast States now revealed
by modern highways; Lake Crescent in the
Olympic National Forest, Mount Hood,
Mount Rainier, Mount Baker, Mount Shuksan, and other natural wonders." Texas

Roads to wonderland. 1R 16-si-sd-loan 35-si-sd-nf-loan U.S. agric. 917.9 917.9

A Bureau of public roads film "Scenic spots reached by roads that are built by the Federal, State and county governments; Mount Hood in the Oregon National Forest, and Crater Lake and Yosemite National Parks." Producer

917.91 Arizona

Arid Southwest. 15min 16-si-\$24 1929 Eastman 917.91

Eastman 917.91

"Locates the hot deserts of the world, and pictures a desert sandstorm, remains of a petrified forest, sagebrush and cactus. Most unusual views of animal life in an arid land include a Gila monster, a horned toad, desert scorpions, a rattlesnake, a desert tortoise, a prairie dog, a badger, skunks at play, a wild cat and a coyote. The last part shows the nomadic life of the Navajo in both summer and winter quarters. The men care for the cattle while the women perform their daily tasks of carding, spinning, and weaving wool." Colorado el-jh-sh-c Guide

917.94 California

California's picturesque peninsula. 2R 16-917.94 si-apply Church

"Historic sites, old Spanish Missions, giant redwoods, home of Herbert Hoover, rough and rugged coastline, ocean beaches, Tanforan Races, two great universities and their 'Big Game.'" Producer el-jh-sh

Falling waters of Yosemite. (Tr 15min 16-si-\$24 35-si-nf-\$60 (Travelette) 1933? 917.94

Also available in ½ reel version (16-si-\$12) and ¼ reel (16-si-\$6) "The Waterwheels, Vernal Fall, Nevada, Yosemite, Ribbon, Cascade, Illilouette and the incomparable Bridalveil." Producer

(Travelette) Let's see Yosemite. 15min 16-si-\$24 35-si-nf-\$60 1933? Haselton

917.94 Also available in a 1/2 reel version (16-

Also available in a ½ reel version (16-si-\$12)

"Entering famed Yosemite Valley through Arch Rock this reel takes the spectator past El Capitan . . . on past the world's two highest waterfalls. . Ribbon and Yosemite . . to Royal Arches and all of the most interesting sights to be found on the floor of the Valley. Thence to Mariposa Grove of Big Trees; then to Glacier Point with its Overhanging Rock. . Again on the valley floor the trail leads past charming Vernal Fall. . The horses are 'parked' at timber line and the steep climb over Half Dome's smooth granite surface begins; a hand cable lends a friendly grip and gives assurance to the timid and in less than an hour the spectator finds himself looking down, almost a mile, into Mirror Lake from Half Dome's Overhanging Rock." Producer si-\$12) "Entering

2R 16-si-\$7.38 35-si-nf-Yosemite. ing Yosemite. 2R 16-si-\$/.38 35-si-nt-\$23.62 Nat. park serv. 917.94 Made by the Visual instruction section of the National park service in collaboration with the Office of education Shows "many scenes which are not common to the general visitor at Yosemite." Iowa univ.

Yosemite national park. 15min 16-si-\$24 1930 Eastman 917.94 917.94 Views of well-known peaks—North Dome, El Capitan, Half Dome, and others—are followed by views of mountain lakes, Yosemite Falls, and Bridal Veil Falls. There are also scenes of winter sports

Yosemite's new roads. 1R 16-si-loan 35-si-nf-loan 1927 U.S. agric. 917.94

A Bureau of public roads film
"The planning and building of new roads into the Yosemite National Park, by the engineers of the Bureau of Public Roads. Yosemite Falls, 2,350 feet, highest in the world, El Capitan, and the exquisite beauty of the Yosemite 'back country.'" California

917.95 Oregon

Oregon country. 15min 16-si-\$24 1930 917.95 Eastman

"Scenes of the covered wagon days are contrasted with those of the country as it is today. The Lewis and Clark route and the Oregon Trail are traced to Fort Hall and Fort Missoula respectively. The route

to Oregon continues through the Hood River country. Scenes along the way include the Columbia highway, salmon fishing, Mt. Hood, Portland, and the salmon industry at Astoria. The film is divided into the following units: Trails to Oregon, Columbia Plateau, the lower Columbia River, the Puget Sound area." Iowa univ. el-jh Guide

917.98 Alaska

Alaska. 15min 16-si-\$24 1930 Eastman

"Depicts the scenery, industries, and life of Alaska: gold mining, salmon fishing, seal hunting, whaling, native life and schools, and the prosperous farms of American settlers. This film helps to dispel the belief that Alaska is a country of only glaciers, ice, snow." Producer el-jh-sh-c Guide

Along the Alaskan coast line. 15min 16-si-\$15 35-si-f-nf-\$50 Church 917.98

Arranged and produced by Jack Robert-

Arranged and produced by Jack Robertson
"Forests of spruce and hemlock; salmon fishing and canneries; ice breaking away from glaciers in the fjords; Kodiak, the old Russian capital; an old Russian Greek church still in use; silver fox farms; sealions of the rocky coast; coal strata and outcroppings along the shore; Aleut Indians in Southwest Alaska; volcanic area of the 'Valley of Ten Thousand Smokes'; wading through mud, pumice and ashes to reach Mount Katmai." Producer

Trail mates. 30min 16-si-\$40 35-si-f-nf-\$100 Church 917.98

Church 917.98

Produced by Captain Jack Robertson "Depicts the adventures of a little dog 'Wrongstart' and what he sees in Alaska. There are the leebergs, glaciers, numerous birds, fish and animals, such as: ptarmigan in its winter, summer, spring and autumn feathers, the land locked salmon, seal, mountain goats, reindeer, squirrels, bear family, fox family, carlbou, sheep, moose, and a family of porcupines with which 'Wrongstart' has a disastrous adventure. There is the shooting of the rapids filled with floating ice and the freezing over of the Tanana River." Producer

918 South America

Continent of South America. 15min 16-si-\$24 1931 Eastman 918

"An animation emphasizes the triangular "An animation emphasizes the triangular shape of all the continents, and locates South America on the globe. Following mountain scenes, the Andes are located on a map. The Pacific slope is shown to be steep, with short, swift rivers. An animation locates the Brazilian Highlands, and the La Plate Basin, with scenes of its waterfalls and jungles. The Guiana Highlands are located on the map, followed by scenes in the Highlands. The Orinoco Basin is shown, lying between the Andes and the Guiana Highlands, followed by scenes along the Orinoco River. The Amazon Basin is located and pictured." Producer el-jh Guide

Rollin' down to Rio. 12min 16-si-loan 35si-nf-loan Dynamic

This was made in cooperation with the Munson steamship line and is a companion picture to "Under the southern cross" listed below

Rollin' down to Rio—Continued

"A pictorial trip through a continent of contrasts. The scenes in this film cover the great coffee plantations of São Paulo, the unique rattlesnake farm of Butantan and the aerial ferry boats of Buenos Aires. In reel two we see Sugar Loaf Mountain of Rio in silhouette, Iguazu Falls and Montevideo, 'City of Roses.' [Useful in] geography [classes]' Am. museum of nat. hist.

el-jh-sh-c

Under the southern cross. 12min 16-si-loan 35-si-nf-loan Dynamic 918

Made in cooperation with the Munson steamship line this is a companion picture to "Rollin' down to Rio" listed above "This picture shows street scenes in the cities of Rio de Janeiro and Santos, Brazil; coffee plantations of São Paulo; Montevideo, Uruguay; Buenos Alres, Argentina; Andes Mountains. [Useful in] geography [classes]" Am. museum of nat. hist.

918.1 Brazil

Brazil. 2R 16-si-rent \$2.50 35-si-nf-rent \$3.75 Religious motion picture found. 918.1

"Rio de Janeiro, and a fascinating trip up the Amazon permits the study of wild and industrial life." Young men's Christian assn.

–Amazonian lowlands. 15min 16-si-\$24 1932 Eastman

"Locates the immense drainage basin of the Amazon River. Shows the wild life, native Indians, jungle products—Brazil nuts and wild rubber—and the cities of Manáos, Santarem, Belem (Parå)." Producer el-jh Guide

Brazil-eastern highlands. 15min 16-si-\$24 1932 Eastman

"Principal agricultural and industrial products of eastern Brazil—coffee, cacao, cassava (manioc), sugar, tobacco, pineapples, silk, and shoes. Shows São Salvador (Bahia), São Paulo and Santos, the coffee centers, and Rio de Janeiro, the capital." fee centers, Producer el-jh Guide

918.2 Argentine Republic

East-Argentina. 15min 16-si-\$24 1933

man

"Portrays this South American republic as essentially agricultural and pastoral. Covers Patagonia, a region of sheep grazing; the arid uplands, which produce heavy crops of sugar cane and grapes with the aid of irrigation; the pampas, a flat expanse of loess combining natural grazing grounds in the heart of Argentina with rich agricultural areas near the seaboard. The Transandean Railroad, the port cities of Bahia Blanca and Buenos Aires, and the Victoria Falls of the Iguassu are shown." Producer

el-jh Guide

918.3 Chile

Chile. 15min 16-si-\$24 1932 Eastman

918.3 Scattered settlements, Indian life, lumbering and sheep raising in south Chile; copper and nitrate industries of north Chile; agriculture; Santiago, Valparaiso, and Trans-Andean railroad

el-jh Guide

918.4 Bolivia

Bolivia. 15min 16-si-\$24 1931 Eastman

"The marked progress made in develop-ing the resources of Bolivia under con-ditions which render travel and com-munication difficult. Animated maps locate and emphasize the major geographical re-gions. Native life, crops, and natural re-sources are emphasized." Indiana el-jh Guide

918.5 Peru

Peru. 15min 16-si-\$24 1932 Eastman 918.5

"Shows the rich natural resources, transportation difficulties and living conditions in a land of coastal lowlands, Andean highlands, and interior lowlands. Pictures Lima, and the busy seaport cities; the sources of guano, crude oil, cotton, rice, sugar cane, copper, vanadium, and gold; native Indian life and the Incaruins." Producer

el-jh Guide

Wings over the Andes. 3R 16-sd-rent \$6 Bell & Howell 918.5

Picture record of the Shippee-Johnson expedition to the mystic land of the ancient Incas, in Peru

el-ih-sh-c

918.6 Panama

Panama canal. 15min 16-si-\$24 1927 East-918.6

"Pedro Miguel Locks, the Gaillard Cut, map animations, view at Paraiso, tropical vegetation, mosquito larvae, draining swamps. The Culebra Cut, Gatun Dam, Gatun Lake. Trip through the Canal, filling the locks, Gold Hill, Miraflores Lake, electric 'mule,' the Pacific Ocean." Ohio "A scenic trip through the 'Big Ditch' with animated drawings to show the workings of the locks." Colorado

el-lh-sh-c Guide

el-jh-sh-c Guide

Panama canal. 1R 16-si-loan 35-si-f-nf-loan General electric

"Interesting details of this great engineering project are shown. Working at Culebra Cut. Dredger cleaning away a landslide. Great size of locks. First boats through the locks and the rooms where water pressure is tested. Final blasting to unite waters of Atlantic and Pacific at Gamboa Dike. [Useful in] geography, commercial geography and history [classes]" Am. museum of nat. hist.

el-Jh-sh

Panama canal and its historical signifi-cance. 12min 16-si-\$24 35-si-nf-\$50 1920 Soc. for visual educ. 918.6

oc. for visual educ.

"The results of the big engineering feat of Goethals. There are views—many of them aerial panoramas—of the jungle through which the Canal was built; the famous Culebra cut; scenes along the Panama Railway; Gatun, Panama City, Colon; the locks in operation; the Gatun spillway; the great dry dock; warships passing through the Canal, and many other. . .scenes." Producer

919 OCEANIA

919.14 Philippine Islands

Philippine Islands. 15min 16-si-\$24 1928 Eastman 919.14

Scenes in Manila. A sugar plantation. Gathering, husking, chopping, and drying cocoanuts. Growing, threshing, hulling, and polishing rice. Making abaca stalks ready for hempel-ih-sh Guide

919.2 Dutch East Indies

Alluring Bali. 11min 16-si-sd-\$24, \$30 35-si-sd-nf-\$65, \$80 1936 Burton Holmes

Narrated by Harlow Wilcox
"The harvesting of rice on the terraced mountainsides is an occasion for family reunions. We see both men and women at work gathering the precious grain. Ducks swim about tiny flag poles planted by their masters in the water covered fields. The native beast of burden, the buffalo; Malay game cocks; doves; and even grotesque pigs, the scavengers of Bali, add interest to the story. Physical and geographical aspects are discussed; as well as the music, religion, and racial descent of this kindly, simple hearted people." Producer

Dutch East Indies. 15min 16-si-\$24 1931 Eastman 919.2

"The markets of Java. Craftsmen show their skill in metal and leather work. Javanese women at work. Family life of the Javanese. Rural life. Sumatra, Borneo, and Celebes are located on the globe. Collecting rubber latex. Spices and rattan being loaded for export from Celebes." Indiana ei-jh Guide

East Indian island. 15min 16-si-\$24 1930 Eastman 919.2

"Ball, palm-lined shore, rice terraces, road building, water buffalo, rice planting and harvesting. House building, pottery weaving, market place. A rich man's dinner, village street, festival. A wedding, native dancers, native orchestra, a Dragon play, funeral, canne launching." Ohio el-jh Guide

919.21 Sumatra

Battak of Sumatra. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 919.21

Produced by Pathe
"A glimpse into the life of the interesting Battak peoples of northwestern Sumatra, with most of the emphasis on the Karo Battak. The beautiful valleys in which they live, their curious houses, and their primitive agricultural methods. One of the few pictures that shows the tilling of a field by a group of people using digging-sticks." Distributor

jh-sh-c

Island of yesterday. 15min 16-si-loan 35si-nf-loan prior 1927 Goodyear 919.21

"Similar to "Conquering the Jungle," Iclass 678, but presents more fully scenic surroundings and native life on the Island of Sumatra at the 40,000-acre rubber plantation of the Goodyear Tire & Rubber Company. Habits and customs of the

people, views of quaint and little-known villages, inviting brooks and rivers, smokecrowned volcanoes and other features are shown. Recreations of the dark-skinned natives, the fortnightly 'haribazar,' the open-air Oriental entertainment and other diversions give the spectator a 'close-up' of the light-hearted islanders. The clubhouse, a social center of Americans and Europeans, the village cutups on 'Main street' and numerous other sidelights are presented. The sanitary homes, which have replaced the thatched, floorless huts, demonstrate the progress made in living conditions within a few years." Producer

Malays of Sumatra. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1929? Films of commerce 919.21

Produced by Pathe

"The Malays of Sumatra live along the coast, where they trade with neighboring islands, cultivate 'wet rice' by primitive agricultural methods, and make meal with mortar and pestle. The film shows the unique and picturesque Malay houses and the elaborate Malay marriage ceremonies."

Indiana jh-sh-c

919.22 Java

Bit of life in Java. (Harvard Pathe ser.) 15min 16-si-\$24 35-si-nf-\$60 1928 Films of commerce 919.22

of commerce

Produced by Pathe

"In the far-off Malay Archipelago, lies
Java with her backbone of volcanic mountains and her fertile valleys that hold
relics of a day when she was an Indian
colony. The finest of these is the Buddhist
ruin of Borobodur, carved and arched in
ancient manner. Now Java is a Dutch dependency, thickly populated and with many
thickwalled cities. Her people are a Mongolian mixture, whose dress, cleanly habits
and transportation and marketing facilities are shown in this picture." Distributor
jh-sh-c

Java—the fragrant isle. (Traveltalks)
9min 16-si-sd-\$30 35-si-sd-f-rent \$3.50
1931? Fitzpatrick 919.22

Equatorial Neptune—ceremony on shipboard. Scenes in Batavia of canals, a native laundryman and natives carrying baskets on poles. A funeral. Village scenes, including a fish market jh-sh-c

919.31 New Zealand

Glimpse of New Zealand. 5min 16-si-\$6.86 35-si-f-nf-apply Bray 919.31 Pictures, of the Wanganui River and Falls jh

919.6 Polynesia

919.61 Samoa

Life in the South seas. 1R 16-sd-apply Bell & Howell 919.61

Photography and narration by Arthur C. Pillsbury

The happy life of the Samoans is shown in detail. Time-lapse photography is used to show the development of the cocoanut plant

Samoa—coco-nuts and copra. 34R 16-si-\$15 Burton Holmes 919.61

"Harbor of Apia, Vallima, Stevenson's home and tomb. Native climbers picking coco-nuts. Solomon Islanders making copre. Natives dancing the Siva-Siva." Indiana

919.69 Hawaii

Hawaiian islands. 15min 16-si-\$24 1928 919.69 Eastman

"Pictures Honolulu and its surroundings—the pineapple industry—native life—the sugar industry—and the seething, molten lava of Kilauea." Producer

el-jh-sh-c Guide

919.8 Arctic regions

Frontiers of the North. (Seeing Canada ser.) 10min 16-si-\$11.64 35-si-nf-apply Canadian gov't.

Canadian govt.

"Made by the Canadian Arctic Expedition of 1922, showing the Journey northward from Quebec City to Baffin Bay. The voyage through ice floes, a polar bear hunthe killing of an Arctic seal, and intimate glimpses of the Eskimos are some of its best features." Producer

"[Useful in geography and nature study [classes]" Am. museum of nat. hist.

el-jh

Glimpses of Greenland. (Seeing Canada ser.) 6min 16-si-\$9.45 35-si-nf-apply Canadian gov't.

"Godhaven, the capital of Greenland, is a port of call for all venturers into the Baffin Bay regions. The film was made by the 1924 Canadian Arctic Expedition which visited this quaint northern outpost and secured pictures of the daily life of Eskimos. [Useful in geography [classes]" Am. museum of nat. hist.

el-ih

Nanook of the North. 6R 16-si-apply 35-si-f-apply DuWorld 919.8

Originally produced by Pathe, 1922

With the isolation and struggle of the North as a background this film shows in authentic detail the daily life of an Eskimo family inside the igloo and the neverceasing search for food and furs. It shows traveling by kayak in summer and dog team in winter and depicts the wresting of a precarious living with primitive weapons from a reluctant nature

Classroom films have been prepared based upon this picture and will be found listed below under the title "Nanook, the Eskimo"

Nanook, the Eskimo. (Eskimo life ser.) 55min 16-si-apply 35-si-f-nf-apply 1936

This is a series of 4 one reel episodes based on Robert Flaherty's "Nanook of the North", listed above, and each reel may be obtained separately (13min 16-si-apply 35-si-f-nf-apply) under the following titles: Eskimo travel; Nanook and his family; Nanook builds an igloo; Nanook the hunter. Especially planned for use with the 3d, 4th and 5th year primary grades el Guide

Policing the Arctic. (Seeing Canada ser.) 6min 16-si-\$9.30 35-si-nf-apply Canadian gov't.

"The Canadian Arctic Expedition of 1922 locates and establishes Canada's most northerly white settlement at Craig Harbor, Ellesmere Island. The picture also gives interesting glimpses of Eskimo life in this region. [Useful in geography classes]" Am. museum of nat. hist. el

92 BIOGRAPHY

Beethoven, Ludwig van

Ludwig van Beethoven. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930? Fitzpatrick 92

At a musical given in honor of Mendelssohn the "Moonlight sonata," the "Country dance" and the "Minuet in G" are played. Dancers in costume perform to the music. Sound version, rather than silent, recommended for this type film jh-sh

Bizet, Georges
Georges Bizet. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent ser.) \$3.50 1930? Fitzpatrick

Describes the writing and selling of his opera "Carmen." Gives selections and scenes from the opera. Sound version, rather than silent, recommended for this type in the short state of the jh-sh

Boone, Daniel

Daniel Boone. (Chronicles of Am. photo-plays ser.) 3R 16-si-rent \$7.50 35-si-f-nf-rent \$12 1923 Yale 92

nf-rent \$12 1923 Yale 92

Adapted from "Pioneers of the old Southwest," a chronicle written by Constance Lindsay Skinner
"Portrays the extreme dangers and hardships endured by the first pioneers to strike westward and . . . links up their exploits with the border wars of the Revolutionary period. . . Depicts how in 1776 Boone is sent by Kentucky land owners as the forerunner of a new settlement. He establishes Boonesboro, but the colony faces extinction through sickness and Indian depredations. Boone is captured by the Shawnees. In 1778 a French officer in the British service directs an Indian offensive against Boonesboro. Boone escapes, races back to his settlement and successfully defends it against a bitter nine day attack." Producer
el-jh-sh Guide

Brahms, Johannes

Johannes Brahms. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-frent \$3.50 1930? Fitzpatrick 92

Here is told the story of his only romance. It includes the music of his "Cradle song," "Hungarian Gypsy dances nos. 5 and 6" and "The blacksmith." Sound version, rather than silent, recommended for this type film jh-sh

Burbank, Luther Luther Burbank. 12min 16-si-\$18 1930 Eastman

"A part of the life of the 'plant wizard' is depicted by scenes showing cactus development, lily pollination, the development of long staple cotton, walnuts with paperthin shells, and improved varieties of wheat and oats." Producer el-jh-sh Guide

Burns, Robert

Robert Burns. 15min 16-si-apply Inst. 92 cinema serv.

Birthplace at Ayr, Scotland; "Tam O'Shanter" Inn; monument on the Doon River; pastoral scenes and love affairs pictured from his poems and songs

Chopin, Frederick

Frederick Chopin. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930? Fitzpatrick 92

Dramatization of the life of George Sand and Chopin. "Polonaise militaire," "Noc-turne in 'E' flat." "Fantaisie impromptu" and the "Funeral march" accompany the and the "Funeral march" accompany the scenes. Sound version, rather than silent, recommended for this type film

jh-sh

Edison, Thomas Alva

Benefactor. 30min 16-si-loan 35-si-f-nf-loan 1929 General electric 92

"The story of Thomas A. Edison's life, beginning with his early boyhood at Milan, Ohio, his birthplace, and including many interesting events in his career." Pro-

Life of Thomas A. Edison. 1R 16-sd-loan 35-sd-f-nf-loan General electric 92

"Scenes depicting Mr. Edison's early life and outstanding incidents in his career. There is a musical accompaniment." Proel-jh-sh ducer

Thomas A. Edison. 1R 16-si-loan 35-si-f-nf-loan General electric 92

"Two score years after he invented the "Two score years after he invented the incandescent lamp, Edison, as the honored guest of the General Electric company, was conducted through its laboratories. This reel shows the motion pictures taken on that occasion. Such eminent scientists as Coolidge, Langmuir, Whitney and Steinmetz were likewise present." Colorado

"¡Useful in¡ general science, physics and history ¡classes¡" Am. museum of nat. hist. jh-sh

Foster, Stephen Collins
Stephen Foster. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930? Fitzpatrick 92

\$3.50 1930? Fitzpatrick 92

"Story opens in a . . . music shop on the Bowery . . in the winter of 1864. Stephen Foster, poverty stricken, wanders into this shop and offers to sell his manuscript of 'My Old Kentucky Home' for five dollars. The young lady in charge sympathizes with the unfortunate composer, and requests him to play the song. And while he . . plays and sings the song . . the people of his inspiration. . Musical numbers played:—Old Folks at Home, Come Where My Love Lies Dreaming, Old Black Joe, O Suzana, Old Kentucky Home." Producer el-jh-sh-c

ephen Foster. (Melody makers ser.) 11min 16-sd-\$30 Gutlohn 92 Stephen Foster.

"Uncle Ned." "Come where my love lies dreaming," "My old Kentucky home," and "Old black Joe" are here presented dramatically with John Huntley, Nancy McCord and the Plantation singers amidst attractive surroundings

el-lh-sh-c

Franklin, Benjamin

Benjamin Franklin. (American states-men ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 92

prior 1927 DeVry 92

"Pictures the youth as a candle maker, how he entered Philadelphia as a poor and friendless boy, walking down the street with a loaf of bread under his arm, to the amusement of the girl who afterwards became Mrs. Franklin, his famous dinner of coarse meal pudding and water, shows the present plant of the Saturday Evening Post, the Library company in Philadelphia, the University of Pennsylvania, the commemorative statue erected to Franklin in Philadelphia, lastly portrays the working of the Post Office Department." Texas el-jh Gulde el-jh Gulde

Hamilton, Alexander

Alexander Hamilton. (American statesmen ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 92

prior 1927 DeVry

"Story pictures the island of Nevis, British West Indies, the birthplace of Hamilton, the dying charge of his mother to aspire to great things, his life in New York at the outbreak of the Revolution and his espousal of the colonists' cause, his service as aide to Washington, and as the first Secretary of the Treasury, his disagreement with Jefferson at cabinet meetings, his death in a duel with Aaron Burr. The Treasury Buildings of today are pictured, also the vaults with currency, and the redemption and destruction of worn or mutilated bills." Texas

el-jh Guide

Alexander Hamilton. (Chronicles of Am. photoplays ser.) 3R 16-si-rent \$7.50 35-si-f-nf-rent \$12 1924 Yale 92 Adapted from "WashIngton and his colleagues." a chronicle written by Honey

Adapted from "Washington and his colleagues," a chronicle written by Henry Jones Ford
"Reveals the fearless manner in which Hamilton took hold of the affairs of the confederation and established its credit. The picture also shows the inauguration of George Washington as first President of the United States, and recounts the story of the rebellion against the levy of an excise tax. Hamilton is first seen as an aide to General Washington during the War. These scenes were photographed around Washington's Headquarters at Morristown, New Jersey. In the reproduction of President Washington's inauguration permission was obtained to use the original copy of the Bible upon which George Washington took the oath of office. It is open at the same page, and the actor's hand rests upon the same chapter and verse as did Washington's." Producer

sh Guide

Händel, George Friedrich

George Frederick Handel. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930? Fitzpatrick

Händel here tells the story of his early life in Germany. "The Messiah" is heard In this film. Sound version, rather than silent, recommended for this type film

jh-sh

Hassam, Childe Childe Hassam—artist. 15min 16-si-\$30 35-si-nf-\$60 1932 Metropolitan museum

"The famous American artist Childe Hassam at his summer home in Easthamp-ton, Long Island. In this film Mr. Hassam

Hassam, Childe-Continued

is shown at his work and play, and many reproductions of his more widely known paintings are included." Producer

jh-sh-c

Jefferson, Thomas

Thomas Jefferson. (American statesmen ser.) 12min 16-si-\$24 35-si-nf-\$80 prior DeVry 1927

"Pictures William and Mary College where Jefferson was educated, shows him drafting the Declaration of Independence, and in conference with Franklin and Adams. It pictures Independence Hall, where the Declaration was signed, and the way in which the news of the Declaration was received by the people of the Colonies. The University of Virginia founded by Jefferson is shown, the Great Seal and also the State Department presided over by Jefferson as the first Secretary of State in Washington's cabinet." Texas el-jh Guide

Lincoln, Abraham

Abraham Lincoln. 30min 16-si-\$48 35-sinf-\$150 1933 Eastman

By K. R. Edwards
The life and times of the Great emancipator. Reel 1 The pioneer—Lincoln's
youth; reel 2 The statesman, including the
Emancipation proclamation, the Gettysburgh address, Lee's surrender and Lincoln's death el-Jh-sh Guide

Abraham Lincoln. (American statesmen ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry

Opens with scenes in a log cabin such as that in which Lincoln was born. Scenes of his early life follow and the circuit court which he covered as a country lawyer is also portrayed. The field at Gettysburg, busts by well-known artists, one depicting Lincoln upon his election to the presidency and the other just before his death are also shown. His last resting place at Springfield and the Lincoln Memorial at Washington conclude this film jh-sh Guide

Heart of Lincoln. 75min 16-si-\$120 35-si-nf-\$300 1927 Films of commerce 92
By W. W. Young and produced by Pathe
"Story of the great President's early
struggles and the hardships that befell
him during the stirring days of the Civil
War. A love story is developed, a romance
between Northern and Southern young
people, which comes to a happy ending
through the self-sacrifice and big heartedness of the Martyr President." Distributor el-jh-sh tor

Liszt, Franz

Franz Liszt. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930? Fitzpatrick 92

Liebestraum is played. With Caroline, his first love, Liszt re-lives his life up to the time her father forbade their marriage. There is a gypsy dance to the accompaniment of the "Second Hungarian rhapsody." Sound version, rather than silent, recommended for this type of film

Livingstone, David

David Livingstone. (Great leaders ser.) 6R 16-si-rent \$8 Religious motion picture found.

"An authentic and well acted picture of the life of this great missionary taken in its actual African settings and portraying

his romantic marriage to Mary Moffett, his work and peril with the natives, and his lonely death." Young men's Chris-tian assn. el-jh-sh-c

Luther, Martin

Martin Luther—his life and times. (Great leaders ser.) 8R 16-si-rent \$13 35-si-nf-rent \$30 Religious motion picture

"This biography, photographed in the actual settings where Luther himself lived and worked, is both accurate and dramatic. It shows the gradual development, in his own experience, of the conflicts and struggles out of which Protestantism was born." Young men's Christian assn.

ih-sh-c

Mendelssohn-Bartholdy, Felix

Felix Mendelssohn. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930 Fitzpatrick 92

si-sd-f-rent \$5.50 1950 FIZPAITICK \$2. We see a girl dancing to the strains of Mendelssohn's "Spring song." Mendelssohn invites her boy accompanist to the castle and listens to him play "On wings of song." Later Mendelssohn arranges for the boy's musical training. The Mendelssohn "Wedding march" is written especially for the wedding of the two young people. Sound version, rather than silent, recommended for this type film

Roosevelt, Theodore

Roosevelt, the great scout. 15min 16-si-\$25 1929 Roosevelt house 92

Also available in a longer version (25min 35-si-nf-\$125)

"A boy of the New York streets comes to Roosevelt House with a group of Boy Scouts and after seeing a motion picture of Roosevelt illustrating the theme 'Building bodily vigor for national service'—joins the Scouts." Producer

T. R. himself. 8min 16-si-\$15 prior 1927 Roosevelt house

Also available in a longer version (15min 35-si-nf-\$65)

"Events in life of Theodore Roosevelt; birthplace; photograph of father and mother; inauguration as President; war activities; burial place." Iowa state college el-jh-sh-c

Rossini, Gioacchino Antonio

Gioacchino Rossini. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930? Fitzpatrick **92** Incidents in the life of Rossini with music from the "Overture from William Tell," "The barber of Seville" and "Stabat mater"

Strauss, Johann

Johann Strauss. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930? Fitzpatrick 92

Strauss is shown in a high class Vienna cafe playing the "Pizzicati polka" and selections from the "Gypsy baron." To the musical background of the "Blue Danube waltz" we are shown scenes along the Danube in which dancers appear. Sound version, rather than silent, recommended for this type film

Taft, Lorado

Lorado Taft-sculptor. 15min 16-si-\$30 35-si-nf-\$60 1933 Metropolitan mu-

"The character and work of the well-known sculptor Lorado Taft, including his untiring efforts in the advancement of the study of art. His famous 'peep shows' of the old masters and his proposed museum are also shown." Producer

Jh-sh-c

Verdi, Giuseppe

Giuseppe Verdi. (Famous music masters ser.) 10min 16-si-sd-\$30 35-si-sd-f-rent \$3.50 1930? Fitzpatrick 92

His life is here depicted with a musical accompaniment from "Il trovatore," "Aida" and "Traviata." Sound version, rather than silent, recommended for this type of

Washington, George George Washington. (American states-men ser.) 12min 16-si-\$24 35-si-nf-\$80 prior 1927 DeVry 92

"Old Elm at Cambridge, Massachusetts; Washington crossing the Delaware; winter quarters at Valley Forge; Washington's headquarters; Alexander Hamilton." Iowa state college

el-Jh Guide

George Washington, his life and times. 60min 16-si-\$96 35-si-nf-\$300 1931 East-

Prepared at the request of the United tates George Washington bicentennial commission

"The content of the films is indicated by the titles of the four reels: (1) Conquering the Wilderness; (2) Uniting the Colonies; (3) Winning Independence; (4) Building the Nation." Producer el-Jh-sh-c Guide

Webster, Daniel

Daniel Webster. (American statesmen 12min 16-si-\$24 35-si-nf-\$80 prior ser.) DeVry

"Birthplace; early home life; parents; his service to his country; the reply to Hayne; extracts from Bunker Hill address; Statue of Liberty. A very fine film." Iowa state college el-Jh Guide

929.9 FLAGS

Hats off 1R 16-si-apply 35-si-nf-apply Soc. for visual educ. 929.9

"From Betsy Ross and George Washington to Roosevelt and General Pershing, America's heroes come to life on the screen to teach a lesson in flag etiquette."

Missouri jh Guide

Story of the Star spangled banner. 15min 16-si-\$24 35-si-nf-\$60 1927 Films of 15min

Produced by Pathe

Produced by Pathe

"The highlights in the career of Francis
Scott Key from boyhood to the war of
1812. His imprisonment on a British
frigate: also the all-night battle of Fort
McHenry, of which Key was an agonized
spectator. When dawn shows the American flag to be still waving over the fort,
Key gives poetic expression to his relief
by writing the national anthem." Distributor

"The light waving over the fort,
hey gives poetic expression to his relief
by writing the national anthem." Distributor

930-999 HISTORY

932 Egypt

Daily life of the Egyptians—ancient and modern. 26min 16-si-\$60 35-si-nf-\$120' prior 1927 Metropolitan museum 932

prior 1927 Metropolitan museum 932
"The Nile, which ages ago fathered one
of the earliest civilizations, is still the
source of life for all those who dwell
in its great valley. The modern peasant
is seen at the various tasks of daily life,
and from these the spectator is carried
back 3,000 years and more to the ancient
pictures which show the same tasks being
performed in just the same way." Producer jh

Digging into the past. 30min 16-si-\$60 35-si-nf-\$120 1931 Metropolitan museum

"The locality and activities of the Egyptian Expedition maintained by The Metropolitan Museum of Art near Luxor. The magnitude and difficulties of this work and its historic and archaeological importance are presented to the spectator in convincing manner. Opening a tomb, unwrapping a mummy, preserving a coffin, unrolling a papyrus, and numerous other incidents make a film of unusual interest." Producer sh-c

Temples and tombs of ancient Egypt. 26min 16-si-\$60 35-si-nf-\$120 1925 Metropolitan museum 932

"Some of the more striking monuments left to posterity by the mighty civilization which flourished so long ago in the valley of the Nile, the pyramids and Sphinx of Gizeh, rock-hewn Abu Simbel, and the many temples of the ancient capital, Thebes, are shown." Colorado

942.03 Great Britain—History— 1154-1399

In the days of chivalry. 12min 16-si-\$27 35-si-f-nf-\$70 prior 1927 Acad. of motion picture arts & sci. 942.03

tion picture arts & sci.

Price of this film has been reduced because negative is worn

"An educational adaptation of the film Robin Hood' in which Douglas Fairbanks created his wonderful role. The film was arranged by a group of California educators cooperating with the Academy of Motion Picture Arts and Sciences." Iowa state college

"This film will be found to have a wide applicability in English literature and in medieval history. In American history there is a decided value to the motion picture in its graphic portrayal of the oldworld background. In literature the film will be found to introduce vitality into the study of 'Ivanhoe,' 'Chaucer,' and 'The Idylls of the King.''' Wisconsin Guide

943 Germany

Noerdlingen-annum 1634. 1R 16-si-sdloan German tourist

"Old 14th century fortifications of Noerdlingen with their moats, ramparts, and towers in perfect preservation, are shown in this film. A pageant is enacted depicting the Swedish occupation 1634." Producer ih-sh

949.4 Switzerland

William Tell. 105min 16-sd-rent \$14 Bell & Howell

Hans Marr plays the name part and Conrad Veidt is the vicious Gessler. The noted European boy actor, Detlef Willecke, portrays the heroic part of William Tell's son. English supervision by Manning Haynes and musical score by Herbert

windt
"Produced . . . in the high regions of
the Swiss Alps, with an authentic background of architecture, character, and
costume. Many of the sturdy old buildings take the same grim part in the picture that they played in the real Swiss
revolt of the 14th century. Dr. P. Lang
and Dr. Gessler of the Swiss National
Museum in Zurich spent months of historical research in recreating . . . the details of life and customs in the days of
William Tell." Producer

970.1 Indians

s and crafts. (American Indian no.7) 1R 16-si-apply 35-si-nf-apply Religious Arts and crafts. motion picture found.

"A detailed study of the Indian arts of yesterday and today . . . Closeups reveal actual techniques and processes used in weaving, basketry, beadwork and many other crafts." Producer el-jh-sh-c

Cheeka, an Indian boy. (Indian life ser.) 40min 16-si-apply 35-si-f-nf-apply 1936 970.1 Edwards

This is a series of 3 one reel subjects based on Burden and Chanler's "Silent enemy", listed in class F, and each reel may be obtained separately (13min 16-siapply 35-si-f-nf-apply) under the following titles: Cheeka and the caribou-(Winter); Cheeka's canoe; Cheeka's home—(Summer). They have been especially planned for use with the 3d, 4th and 5th year primary grades

el Guide

ld life. (American Indian no.8) 1R 16-si-apply 35-si-nf-apply Religious Child life. motion picture found.

"The life of the Indian child in his reservation home and in his school. . . Especially recommended for children's groups."

Producer el-jh-sh-c

Government education. (American Indian no.5) 1R 16-si-apply 35-si-nf-apply Religious motion picture found. 970.1

"A stimulating interpretation of government effort to fit Indian youth, through education and practical training, for present day life." Producer el-jh-sh-c

Government service and its problems. (American Indian no.3) 1R 16-si-apply 35-si-nf-apply Religious motion picture found. 970.1

"Reservation life in many of its aspects, and some of the more significant questions arising on government administration." Producer

el-jh-sh-c

His contribution to modern civilization. (American Indian no.9) 1R 16-si-apply 35-si-nf-apply Religious motion pic-970.1 ture found.

"Presenting a new aspect of the American Indian, in his agricultural, artistic and cultural contributions to contemporary life." Producer Producer el-jh-sh-c

How he earns a living. (American Indian no.6) 1R 16-si-apply 35-si-nf-apply Religious motion picture found. 970.1

"From ancient crafts, through agricul-tural pursuits, to training for modern in-dustrial life, we follow the Indian in his effort toward economic independence." Producer el-jh-sh-c

Indian tribal customs and village life. 55min 16-si-apply 35-si-f-nf-apply 1936 Edwards

This is a series of 4 one reel subjects based on Burden and Chanler's "Silent enemy", listed in class F, and each reel may be obtained separately (13min 16-siapply 35-si-f-nf-apply) under the following titles: Chetoga—chief of the Ojlbways; Dagwan—the medicine man; Indian hunting grounds; Life in an Indian village. This series was planned especially for use with upper grades

jh-sh Guide

Indians of the painted desert. 5min 16-si-\$6.22 35-si-f-nf-apply Bray 970.1 "Costumes, customs, activities and character studies of the Navajo Indians of New Mexico." Producer

Little Indian weaver. (Children of all lands ser.) 15min 16-si-\$24 35-si-nf-\$60 1929 Films of commerce 970.1

By Madeleine Brandeis and produced by

By Madeleine Brandeis and produced by Pathe
"Bah lives on a Navajo Indian reservation in California and learns from her
mother the art of weaving in which the
women of her tribe are skillful. Bah wants
the doll of the white child more than she
wants anything in the world and her
mother tells her she may weave a blanket
to exchange for the coveted treasure at
the Trading Post. When the Trader refuses to take the blanket, darkness and
despondency descend upon the little Indian girl but her friend, the Trader's son
buys the doll for her with his savings.
After this act of kindness, the Navajos
accept the white boy as their friend and
teach him many interesting bits of Indian
lore and customs." Distributor

el-jh

Looking forward. (American Indian no.10) 1R.16-si-apply 35-si-nf-apply Religious motion picture found.

"A recapitulation of his problems and a consideration of the Indian's future. A glimpse of the young leaders upon whom that future depends." Producer el-jh-sh-c

Mission influences. (American Indian no.4) 1R 16-si-apply 35-si-nf-apply Religious motion picture found. 970.1

"A portrayal of the outstanding evangelical and educational work being done among the Indians by certain of our churches." Producer

el-jh-sh-c

Pueblo dwellers. 15min 16-si-\$24 1931 970.1 Eastman

"Pictures the home life of the Pueblos of New Mexico, showing an Indian village, adobe dwellings, method of planting corn, squaws preparing tortillas, baking in an outdoor oven, basket-weaving, pottery-making, ceremonial dances, and a government Indian school." Producer el-jh Guide

Survivals of primitive home life. (American Indian no.2) 1R 16-si-apply 35-si-nf-apply Religious motion picture

"Some interesting domestic methods and customs which have been handed down through succeeding generations to the present." Producer el-jh-sh-c

When the white man came—and after.
(American Indian no.1) 1R 16-siapply 35-si-nf-apply Religious motion picture found. 970.1

"Picturing the tribal and cultural dis-tribution of the primitive Indian, his life, and the influence of the white man upon and the influe it." Producer

el-ih-sh-c

973 United States

973.1 Discovery

Columbus. (Chronicles of Am. photoplays ser.) 60min 16-si-rent \$7.50 35-si-f-nfrent \$12 1923 Yale 973.1

Adapted from "The Spanish conquerors," a chronicle written by Irving Berdine Rich-

"The 'mad Italian' is first seen at the Court of King John II of Portugal in 1485. On discovering the duplicity of this monarch he leaves Portugal and after years monarch he leaves Portugal and after years of arduous endeavor at length secures a hearing before Ferdinand and Isabella of Spain. At first rebuffed, he is granted a second hearing through the intercession of the learned priest, Juan Perez, and finally obtains Isabella's support. The departure of his tiny fleet from Palos, his dangers and doubts while on the high seas and his eventual triumph in landing upon Watling Island, October 12, 1492, are all depicted." Producer el-jh Guide

English settlements in North America. 1R 16-si-apply 35-si-nf-apply Soc. for Soc. 16-si-apply 35-si-nf-apply 973.1 visual educ.

visual educ.

"The first English settlements are visualized. . As Dutch and Swedish settlements are absorbed, the original names fade out and give place to New York, Albany and Wilmington. The screen pictures the substantial homes and mills that were built, and a contrast is developed between the colonizing of the English and the mere exploration of the French. The Appalachian barrier is portrayed. The map traces the one easy pathway to the west, and shows how the French blocked the way." Producer

Guide

French explorations in North America. 1R 16-si-apply 35-si-nf-apply Soc. for 973.1 visual educ.

Traces main routes of the French explorers, traders, and missionaries by animated lines upon a map. The country is visual-

ized through scenics. Shows how the French were blocking the westward spread of English colonies sh Guide

Jamestown. (Chronicles of Am. photo-plays ser.) 60min 16-si-rent \$7.50 35-si-f-nf-rent \$12 1923 Yale 973.1 Adapted from "Pioneers of the Old South," a chronicle written by Mary Johnston

The Jamestown settlement in 1612 revealing the daily life of the colonists, confronted with the ever-present menace of the Indians whose hostility is aggravated in part by Spanish intrigue. The capture of Pocahontas, her marriage to John Rolfe, and the end of Powhatan's war of extermination el-Jh Guide

973.2 Colonial period

Eve of the Revolution. (Chronicles of Am. photoplays ser.) 45min 16-si-rent \$7.50 35-si-f-nf-rent \$12 1924 Yale 973.2

Adapted by George Pierce Baker of Yale university from a Chronicle of the same name, written by Carl Becker

"Scenes incident to the 'Stamp Act,'
'Taxation Without Representation,' the
'Boston Massacre,' the 'Boston Tea Party,'
the Salem Assembly, the famous rides of
Paul Revere and William Dawes, Jr., the
sharp military clashes at Lexington and
Concord and the retreat of the British."
Producer el-Jh Guide

Gateway to the West. (Chronicles of Am. photoplays ser.) 45min 16-si-rent \$7.50 35-si-f-nf-rent \$12 1924 Yale 973.2

Adapted from "The conquest of New France," a chronicle written by George M. Wrong

M. Wrong

"Dramatization of that heroic portion of our national epic when France, working south from Canada, and England, pressing westward from her seaboard colonies, began the inevitable conflict over the vast wilderness west of the Alleghanies. The film presents George Washington . . as the young Colonel who, sent by Governor Dinwiddle of Virginia to lodge a protest with the French, assumed command of the expedition upon the death of his ranking officer and made his courageous stand at Fort Necessity; an engagement which opened the eyes of England's ministers to the seriousness of the French menace in America." Producer el-jh Guide

Peter Stuyvesant. (Chronicles of Ann. photoplays ser.) 45min 16-si-rent \$7.50 35-si-f-nf-rent \$12 1924 Yale 973.2

Adapted from "Dutch and English on the Hudson," a chronicle written by Maude the Hudson," a wilder Goodwin

Wilder Goodwin

"Presentation of the events from 1653 to 1664 through which Dutch New Amsterdam became English New York. Life in the picturesque colony; the frivolity of the court of Charles II, King of England; the decision to send a fleet to New Amsterdam; the growing revolt of Stuyvesant's citizens against his autocratic administration; the arrival of the English fleet; Stuyvesant's determination to resist; and his ultimate surrender. Professor Dixon Ryan Fox of Columbia University wrote the script and supervised the production of this subject." Producer el-jh Guide

Pilgrims. (Chronicles of Am. photoplays ser.) 45min 16-si-rent \$7.50 35-si-f-nf-

rent \$12 1923 Yale 973.2

Adapted from "The fathers of New England," a chronicle written by Charles M. Andrews

M. Andrews

"The struggle for religious freedom as typified by the story of the Pilgrims. Beginning with the experiences of the Separatists in Scrooby, England, the film traces their migration to Holland in 1607-08, and, twelve years later, the departure of the devout band for America. It depicts the voyage of the Mayflower, the landing on Plymouth Rock, the hardships and sufferings during the first winter and the courageous refusal of the Pilgrims to return to England. In the scene showing the signing of the Mayflower Compact, the document used is reproduced from a copy of the original made at the time by William Bradford." Producer

el-jh-sh Guide

el-jh-sh Guide

(Chronicles of Am. photoplays 45min 16-si-rent \$7.50 35-si-f-nf-Puritans.

rent \$12 1924 Yale 973.2

Adapted from "The fathers of New England," a chronicle written by Charles M. Andrews

"Contrasts the economic background of the Massachusetts Bay Colony and life in early New England (1630), with the court of King Charles I. It reveals the political moves behind Thomas Morton's effort to discredit the Puritans in England and to bring about the revocation of their charter. It traces the rise of dissension within the colony, including the departure of Roger Williams, and portrays the capable leadership of Governor Winthrop in successfully bringing the colony through this dual crisis in its affairs. The elaborate scene showing the Council Chamber at Whitehall is a true reproduction of a portion of the famous palace." Producer el-jh Gulde "Contrasts the economic background

el-jh Gulde

Struggle of French and English for North America. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ. 973.2

"The main campaign movements in the French and Indian War are covered. Animated maps point out the situation that confronted the English; the French forts controlling the Mississippi Valley; the claims of the English to the western lands, and the three routes by which the French lines could be pierced. Maps and motion picture views visualize the scenes of the struggle." Producer

Wolfe and Montcalm. (Chronicles of Am. photoplays ser.) 45min 16-si-rent \$7.50 35-si-nf-rent \$12 1924 Yale 973.2

Adapted from "The conquest of New rance," a chronicle written by George M. Wrong

Wrong

"Recounts the work of William Pitt, England's great war minister. In detail, the film explains the situation in world politics which prompted Pitt to send an army overseas in command of General James Wolfe. It reveals successively, the situation in New France, with General Montcalm hampered by the jealousy of Vaudreuil, Governor General; the military strategy of Wolfe in his attack on Quebec; Montcalm's desperate defence; and the clash on the Plains of Abraham. Locations over an area of two hundred miles were investigated in order to find an unhampered terrain corresponding physically to the

original appearance of the Plains of Abraham. The massive wall and the St. Louis gate of Quebec, shown in the illustration, were reconstructed to exact scale." Producer el-jh Gulde

973.3 Revolution. Confederation

Declaration of independence. (Chronicles of Am. photoplays ser.) 45min 16-sirent \$7.50 35-si-f-nf-rent \$12 1924 Yale

Adapted from "The eve of the Revolu-tion," a chronicle written by Carl Becker "Account of the efforts of a small group of patriots to bring about a unanimous vote in favor of independence reveals clearly the three outstanding attitudes of public opinion, as represented by the Tories, the Conservatives and those in favor of absolute independence. . A reproduction of the interior of Independence Hall, and a huge setting depicting an entire street in Philadelphia as it appeared in 1776." Producer el-jh Guide

s. (Chronicles of Am. photoplays 45min 16-si-rent \$7.50 35-si-f-nf-\$12 1923 Yale 973.3 Vincennes. ser.)

ser.) 45min 16-si-rent \$7.50 35-si-f-nfrent \$12 1923 Yale 973.3

Adapted from "The Old Northwest," a
chronicle written by Frederic Austin Ogg
"Story of the struggle for supremacy
along the frontier when the American
Colonles were fighting for independence in
the east. Hamilton, British Governor
General of the Northwest, occupies Vincennes to curb the influence of westwardspreading ploneers. George Rogers Clark,
to rid the country of Hamilton and his
Indian allies, strikes out from Kentucky
and reaches Kaskaskia before cold weather
in 1779. Hamilton, protected by an impenetrable wilderness, feels secure until
spring. Grasping his opportunity, Clark
presses across the 'Drowned Lands' and
captures Vincennes, breaking the influence
of the British over the Indians and winning
for the Republic the vast territory from
which later were formed the states of
Ohio, Indiana, Illinois, Michigan, and Wisconsin." Producer
el-jh Guide

el-jh Guide

War of the American Revolution. 1R 16-si-apply 35-si-nf-apply Soc. for visual

Animated maps show the preliminary moves—Paul Revere's ride, Lexington, Concord, and Bunker Hill, with pictures of monuments marking where the Minute men stood. The American attempt to capture Canada and the British attempt to isolate New England. The capture of Vincennes, and the southern campaign which ended in the surrender of Cornwallis

Guide

Yorktown. (Chronicles of Am. photoplays ser.) 45min 16-si-rent \$7.50 35-si-f-nf-rent \$12 1924 Yale 973.3

Adapted from "Washington and his comrades in arms," a chronicle written by George M. Wrong

"The progress of the War of Independence between January and October, 1781. The hardships and suffering of the American troops; the problems confronting General Washington due to discouragement and interference; the international aspect of the campaign of 1781; the aid rendered by the French leaders; the march of the

Yorktown—Continued

American army south to Yorktown; the arrival of the French fleet; the complete outwitting of Clinton and Cornwallis; the battle of Yorktown, and the surrender of Cornwallis are all . . . depicted." Producer el-jh-sh Guide

973.4 Constitutional period

Breaking through the Appalachians. 1R 16-si-apply 35-si-nf-apply Soc. for 973.4 visual educ.

A visualization of the westward move-ment and the three main paths that were followed in breaking through the Ap-palachians Jh-sh Guide

Louisiana purchase and Lewis and Clark expedition. 1R 16-si-apply 35-si-nfapply Soc. for visual educ.

Shows causes and immediate results of the Louisiana purchase in 1803. Traces the Lewis and Clark expedition by animated map and there are motion pictures of the country Guide

Settling the Ohio valley. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ.

"The problems which the pioneers were called upon to face are clearly visualized. Stockaded settlements are pictured, showing the need for military defense against Indian attacks, and motion pictures show types of early homes, mills and stores. Animated maps visualize the Northwest Territory, the government survey that divided the new domain into ranges, townships and sections, and the roads followed by the various 'companies' that settled the territory before 1790. There are pictures of the scenes along the Mississippi and of a typical river flatboat." Producer el-Jh Guide

973.6 Period of 1845-1861

Trans-Mississippi trails. 1R 16-si-apply 35-si-nf-apply Soc. for visual educ. 973.6

"Portrays the occupation of the trans-Mississippi region. Indians were subdued, the Erie Canal linked the Great Lakes with the Hudson, and thousands of immigrants went directly to the Central Plains. Large groups pushed beyond the Mississippi and established farms and ranches as far west as the Rockles. The reel shows something of the geographical location of the various routes, the agricultural demands, and the political lines of the Missouri Compromise. The settlement and annexation of Texas, the Mexican Warcampaigns, and the addition of New Mexico, California, and the Gadsden Purchase are indicated by animated maps." Producer jh Guide

973.7 Civil war

Dixie. (Chronicles of Am. photoplays ser.) 45min 16-si-rent \$7.50 35-si-f-nf-rent \$12 1924 Yale 973.7

Adapted from "The day of the confederacy," a chronicle written by Nathaniel W. Stephenson "The stately mansion seen in the film is on the original Rutledge Plantation, located on the Santee River in South Carolina.

The negro quarters are on the famous old Hermitage Plantation, not far from Savannah. Amid these actual settings are depicted the experiences of a typical southern family behind the lines, from the time its men ride off to the War until the final months of the struggle. The film reveals especially the heroic part played by the women of the Confederacy and the position and attitude of the slaves. It ends with a re-creation of Appomattox when General Lee, representing the unbroken spirit of the South, meets with General Grant and terms of surrender are arranged." Producer el-Jh-sh Guide

973.9 20th century

This is America.
Bell & Howell 55min 16-sd-rent \$12

Record of our country and our people during the past two decades. Was released under title "Mad age" by Beckman film corporation
Gilbert Seldes, author and columnist, selected the sequences from millions of feet of newsreel film. Dr. Hugo Riesenfeld wrote the symphonic musical accompaniment. Alois Havrilla, famous radio announcer, delivers the descriptive narrative by Mr. Seldes el-jh-sh-c

978 Western states

Frontier woman. (Chronicles of Am. photoplays ser.) 45min 16-si-rent \$7.50 35-si-f-nf-rent \$12 1923 Yale 978

35-si-f-nf-rent \$12 1923 Yale
Adapted from "Pioneers of the Old
Southwest, a chronicle written by Constance Lindsay Skinner
"Story of the settlement of Watauga,
in the mountains of Tennessee, in 1780.
Practically all of Watauga's fighting men
had ridden with John Sevier against Major
Patrick Ferguson, Tory terrorizer of the
frontier. With every trader bringing fearful tales of Indian uprisings the courageous
women carried on alone and refused to recall their warriors, who, thus freed, fought
and won the battle of King's Mountain, a
victory that was a prelude to the defeat of Cornwallis." Producer
el-jh Guide

Overland to California. 15min 16-si-\$24 1930 Eastman 978

"Evolution of westward highways, "Evolution of westward highways, from pioneer days to present-day air routes. The Mormon Temple and Tabernacle in Salt Lake City are shown, as are Great Salt Lake and salt operations carried out along its shores. The trail continues westward from Sparks, Nevada, passing through the Sierra Nevadas, the Sacramento Valley, and the city of Sacramento San Francisco and the famous Golden Gate." Iowa univ. Guide

979.4 California

Golden gate. 15min 16-si-\$24 1928 Eastman

Views of the Golden gate, piers and docks, ferries, the business section of Oakland, and the University of California stadium. An airplane view of the heart of San Francisco. Subsequent scenes show an old-fashioned cable car, a Chinese telephone exchange, the residential section, and Golden gate park. Scenes at

the waterfront depict the unloading of pineapples, bananas, coffee, copra, hemp and silk. An animation shows shipping lanes to Alaska, the Orient, Australia, the Panama Canal, and South America. Exports for the Orient are loaded into ships Guide Golden gate-Continued

PHOTOPLAYS

Feature or recreational pictures

The material classed here is that which is of more interest for its story value than for the subject matter. It corresponds to the type of material classed in fiction in libraries

Black Beauty. 7R 16-sd-\$280 1933 lohn

Based on Anna Sewell's book and was originally produced by Monogram

Fun at the seashore. 1933 Caldwell 14min 16-si-apply

"Four inland children at the seashore, ages 12, 10, 6, and 3. They watch the waves, play in the ocean, dig in the sand, gather shells, pick cocoanuts, watch the boats, see the big seaplanes. Purpose to give inland children some adequate concept of the ocean. Titled simply for primary reading. Experimental." Producer

Great raccoon hunt. 2R 16-sd-apply 1933 Bell & Howell F

An amusing story of a raccoon, a skunk, two boys, a couple of dogs and incidentally some rabbits, chickens and an owl. The vocabulary is informal and the picture recreational altho containing good shots of both the skunk and the raccoon el-jh

2R 16-si-\$30 Heidi of the Alps. Inst. F cinema serv.

"Johanna Spyri's immortal child life in Switzerland." Kan story Kansas

Hunting ground of Hiawatha. apply Bell & Howell 1R 16-si-

Based on the well-known poem by Long-

Lady of the Lake. 42min 16-sd-\$125 35-si-f-rent \$15 1930 Fitzpatrick F

"A five reel feature based on the immortal poem by Sir Walter Scott and produced in the Highlands of Scotland, the actual locale of the poem—musically synchronized with Nathaniel Shilkret's symphony orchestra and a vocal chorus of forty voices." Producer ih-sh

5R 16-si-apply Kodascope F Lost world.

st world. 5R 16-si-apply Kodascope F
Produced by First national, from a novel
by Sir Arthur Conan Doyle, featuring
Lewis Stone, Bessie Love, Lloyd Hughes
and Wallace Beery
"Story of a lost world in heart of South
America, visited by a party of Englishmen,
who see huge animals of prehistoric age.
They bring one back to England, as proof
of their story. It escapes and swims
down Thames River to the ocean. This
picture combines scientific reproduction
of former ages with modern romance in
a thrilling, stupendous spectacle of interest to every spectator." Minnesota
"For upper grades and junior high
school." California
jh

Lot in Sodom. 3R 16-sd-apply 35-sd-f-DuWorld F apply 1933

Produced by J. Sibley Watson and Mell-ville Webber and selected by the National board of review as one of the ten best pictures of the year

Man without a country. 8R 35-si-nf-apply Inst. cinema serv.

Based on Edward Everett Hale's story "Photographed in the exact historical location. Naval forces by permission of the United States Naval Department. . . Characterizations of Aaron Burr, Thomas Jefferson, Alexander Hamilton, Stephen Decatur and others." Distributor

Milady's escapade. 21m 1934 Bell & Howell 21min 16-sd-rent

Tabloid presentation of Flotow's opera el-jh-sh-c

Mother Goose rhymes. 1R 16-si-\$10 Inst. cinema serv.

"An interesting nursery cartoon in which are included the fables of Hickory Dickory Dock, Humpty Dumpty, and Hey Diddle Diddle." Wisconsin

1R 16-sd-apply 35-sd-**Pecheurs** d'islande. f-apply DuWorld

From the book by Pierre Loti. I dialogue and English dialogue titles French

Pied Piper of Hamelin. 2R 16-si-apply Edited pictures of Robert Browning's picturization famous poem

Pony express. 60min 16-si-apply Kodascope .

Produced by Paramount
"Founding of the Pony Express and
thrills of the first trip westward bearing
news of Lincoln's election." California
"Vivid story of the days when California
was hesitating between North and South."

Wisconsin el-lh-sh

Robin Hood, junior. 3R 16-si-apply Kodascope

Featuring Frankie Lee and Peggy Cart-Featuring Frankle Lee and Peggy Cart-wright
"Juvenile interpretation of the story of medieval chivalry and romance. Frankie, in a dream, pictures himself as the bold highwayman. An excellent story both for juveniles and grown-ups. Good photog-raphy, lots of action, and good, clean humor." Minnesota

Robinson Crusoe. 4R 16-si-apply Edited pictures

Based on Daniel Defoe's classic

nt enemy. 6R 16-sd-apply 35-sd-f-nf-apply 1934 Edwards F Silent enemy.

apply 1934 Edwards F
Produced by W. Douglas Burden, research associate of the American museum of natural history
Also obtainable in a 7R version (16-siapply 35-si-f-nf-apply)
"There is a stamp of sincerity and authenticity. There is a generous supply of fun in this cleverly arranged film and there are a number of thrilling episodes. The climax is more impressive and more stirring than has been seen in any other picture of its ilk. That is when the caribou herd comes in to view. This sight has never been equaled." N.Y Times

Silent enemy—Continued
Classroom films have been prepared based upon this picture and will be found in class 970.1 under the titles "Cheeka, an Indian boy" and "Indian tribal customs and village life"

Spectre. 13min 16-si-\$30 35-si-nf-\$60 Metropolitan museum F

"This Colonial fantasy tells of a malign apparition which appears to the superstitious eyes of a seventeenth-century New England family. According to the belief of the age it is exorcised by the crossing of water and the reading of the Bible. For the backgrounds of the major scenes rooms in the American Wing were used." Producer Withdrawn.

el-ih

Trip to the farm. 12min 16-si-apply 1931? Caldwell

"First-grade children from a city elementary school visit farms for first-hand information. They see dogs, cats, sheep, goats, horses, cows, gather eggs, see a

tractor plowing, feed the chickens, and other work of the farm. Film is titled in simple phrases and large type for first-grade reading. Experimental." Producer el

'Twas the night before Christmas. 15min 16-si-\$12 Hollywood film enterprises F Based on Clement C. Moore's famous poem el

Vasantasena. 27min 16-si-\$60 35-si-nf-\$120 1930 Metropolitan museum

Produced by the School of fine arts, Pratt institute

Pratt institute

"A careful study of the paintings of India exhibited in the Museum preceded the production of this film, which is based on an incident in a tenth-century Indian story. The scenery, painted in the 'fiat' manner of Indian miniatures, and the costumes were designed and made by Pratt Institute students, who were also the actors." Producer
Withdrawn. Withdrawn.

Title and Subject Index

References in the index are to class number, not to pages in this catalog. These numbers are given in boldface. Running class numbers are carried at the top outside corner of each page.

A B C of forestry 634.9	Agriculture	Alpacas. See Llamas
About bananas 634.7	Central plains 917.7	Alps
Abraham Lincoln, DeVry 92	Farmer 630	Heidi of the Alps
Abraham Lincoln. Eastman 92 Abrasives	Master farmer 630 Yoke of the past 630	Aluminum Chemical effects of elec-
Jewels of industry 621.9	See also Botany, Eco-	tricity 621.3
Manufactured abrasives 621.9	nomic; Cattle; Clearing	Inside story of your tele-
Acadia	of land; Farms	phone 621.38
Land of Evangeline 917.16 Magic Minas 917.16	Accounting	Amazon valley
Accidents	Magic in it 631	People who live at the equator 573.
		America
Prevention	Formosa	
Everybody's business 629.213	Farmers of Formosa 630.952	Discovery and exploration
Once upon a time 629.213 Saving seconds 629.213	Great Britain	Columbus 973.
	This was England 630.942	English settlements in North America 973.
vanced grades 614.8	Air	French exploration in
Why be careless? 629.213	Air 533	North America 973.
Acoustics. See Hearing;	Air, Compressed. See Com-	Jamestown 973.
Sound	pressed air Air, Liquid. See Liquid air Air pressure in which we	American bison. See Bison American civil war. See
Across the seven seas 664.2 Action of the human heart 612.1	Air pressure in which we	U.S.—History—Civil war
Adams, Wayman (as actor)	1176 533	American eider duck 636.5
Painting a portrait 757	Air-ships. See Airships	American Indian series
Adaptation (Biology)	Aircraft design 629.1 Airplanes	Arts and crafts 970. Child life 970.
How living things find a home on the earth 591.57	One-point landings 629.1	Government education 970.
How nature protects ani-	Sky fleets of the navy 629.1	Government service and
mals 591.57	See also Aeronautics	its problems 970.
Nature's armour 591.57 Abyssinia. See Ethiopia	Airships	His contribution to mod- ern civilization 970.
Administrative ability. See	Magellan of the air 629.1 Story of the airship 629.1 U.S.S. Akron 629.1	How he earns a living 970.
Executive ability	Story of the airship 629.1 U.S.S. Akron 629.1	Looking forward 970.
Adventure in Tripoli 593	See also Aeronautics	Mission influences 970. Survivals of primitive life
Adventures of Peter 599 Aerial navigation. See Aero-	Akron (Airship)	970.
nautics	U.S.S. Akron 629.1	When the white man
Aeronautics	Alaska	came 970.
Aircraft design 629.1 Development of transpor-	Alaska 917.98	American statesman series Franklin, Benjamin 9
tation 380	Along the Alaskan coast line 917.98	Hamilton, Alexander 9
Forest fire fighters of the	Trail mates 917.98	Jefferson, Thomas 9:
skies 634.92	Alberta, Canada	Lincoln, Abraham 9
Jack wins his wings 629.1 Watching the weather	Digging up the past 560 Kicking horse trail 917.123	Washington, George 99 Webster, Daniel 99
above 551.5	Motoring in cloudland 917.123	American petroleum insti-
See also Airplanes;	See also Banff nation-	tute
Airships; Balloons	al park, Alberta; Buffalo	Story of petroleum 665. American posture league
Flights	park, Alberta; Jasper park, Alberta; Maligne	Feet 61:
Flying across America in	lake, Alberta	American revolution. See
16 hours with United	Alexander Hamilton, DeVry 92	U.S. — History — Revo-
air lines 629.1	Alexander Hamilton, Yale 92 Alfalfa	lution American wing 749
From London to Paris by air 914	Million-dollar pockets 632.6	Americanization
Aeroplanes. See Airplanes	Algeria	Citizen and his govern-
Afghanistan	Through oil lands of Eu- rope and Africa—Ger- many, France, Spain,	ment 353 Immigration 329
Changing times in Afghanistan 915.8	many France Spain	Immigration 329 America's granary 633.
Africa	Morocco, and Algeria 665.5	America's heritage 369.43
Cairo to Capetown 916	Allen, Hugh	Ames, Oakes
Africa, British East East Africa 916.7	Story of the airship 629.1	Tropic garden 580 Amid Alpine snows 796.5
Masai 916.7	Allen, Richard Day Guidance in public schools	Amoeba
Africa, Central	371.42	Amoeba. Edited pictures 593
Forest people of Central	Alligators	Amoeba. Gaumont British 593
Africa 916.7	Reptiles 598.1	Elementary animals 593 Gift of life 613.9
Africa, North People who live in the	Alluring Bali 919.2	Living cell 593
desert 573.4	Along the Alaskan coast	Man 612
See also Algeria; Mo-	line 917.98	Microscopic animal life 593 Protoplasm—the beginning
rocco	Along the firing line, or The story of a spark plug 629.2	of life 593
Agricultural machinery	Along the milky way 637	Tiny water animals 591.92
Yoke of the past 630	Along the romantic Rhine.	Amsterdam
Agricultural tools. See Agricultural machinery	See Romantic Rhine 914.3	Canals and streets of Amsterdam 914.92
	THE PARTY OF THE P	Amsterdam 914.92

Anaconda sheet copper, Manufacture of 669.3	Ant lions Life cycle of the ant-lion 595.7	Arizona Arid Southwest 917.91
Analysis of exercises per- formed with a rhythmi- cal swing 613	Anthracite coal, Eastman 622.33 Anthracite coal, General electric 622.33	Civilian conservation corps at work—Arizona 634.909
Anatomy Body framework 611	Anthropogeography People who live at the	Conquering the desert 677.2 See also Roosevelt dam, Arizona
Anchored acres 631.4 Andrews, Charles McLean	equator 573.4 People who live by the	Armadillo Adventures of Peter 599
Fathers of New England. See Pilgrims 973.2; Puri-	sea 573.4 People who live in a	Armies of health and disease 589.95
tans 973.2 Angler's idyll 799.1	crowded valley 573.4 People who live ln the	Armor. See Arms and armor Arms and armor
Angling. See Fishing Animal and bird life in Yo-	Arctic 573.4 People who live in the	Visit to the armor gal- leries 399
semite national park 591.9 Animal behavior. See Animals—Habits and be-	desert 573.4 People who live in the	Art
mals—Habits and be-	mountains 573.4 People who live on a	Education See Art—Study and
Animal camouflage 591.57 Animal coloration. See Color	great plain 573.4 People who live through	teaching
of animals Animal life 590	industry 573.4 Antilles, Lesser	Galleries and museums Behind the scenes in the
Animal locomotion	From Haiti to Trinidad 917.29 Ants	Metropolitan museum 708
From creeping to walking 612.76	Ants 595.796 Ants: nature's craftsmen	Study and teaching Artist 707
Posture and locomotion 612.76 Animal parasites. See Para-	595.796 Battle of the ants 595.796	Art, Medievai Hidden talisman 709
sites Animais	Battle of the centuries 595.796 Beneath our feet 595.7	Art education. See Art— Study and teaching
Big game trails 591.9 Bird and animal life in	Our ant gang 595.796	Art galleries. See Art—Gal-
Yellowstone park 917.87 Rocky mountain mam	Ants: nature's craftsmen 595.796 Apes Monkoys and apes	Art museums. See Art—
mals 591.9 Tame wild life of Yo-	Monkeys and apes 599 Aphididae. See Plant lice	Galleries and museums Art objects
semite 591.9 See also classes of the	Aphids 595.7 Apiculture. See Bees	American wing Art of spinning and weav-
animal kingdom (e.g. Birds); and names of	Apparatus, Electrical. See Electric apparatus and	Arteries 677
special animals	appliances Apple	Circulatory control 612.1 Artificial respiration 614.8
Color See Color of animals	Apples of Annapolis 634.1 Apple-blossom time in Nor-	Artificial silk. See Silk, Artificial
Geographical distribution	mandy 914.4 Apples of Annapolis 634.1	Artist 707 Artists
See Geographical dis- tribution of animals and	Aquatic animals. See Fresh- water fauna; Marine	Artist 707
plants	fauna Aquatic birds. See Water	Negro artists at work 326 Arts and crafts 970.1
Habitations Housing problem 591.5	Aquatic insects. See In-	Asbestos 553.6
Housing problem 591.5 Life in the hedgerows 591.5	sects, Aquatic Arabia	Ask Daddy 614.8
Habits and behavior Animals of the zoo 591.5	Wanderers of the Arabian desert 915.3	Asphalt Inside story of your tele-
Mixed bathing 591.5 Nature's armour 591.57	Ship of the desert 636.29	phone 621.385 Assiniboine, Mount
Nature's nurseries 591.5	Arboriculture. See Forests and forestry; Fruit cul-	Mountaineering memories 796.5
See also Animals— Stories; also names of	Arc lamps. See Electric	Astronomy Communing with the
special animals Irritability	Arc light. See Electric	heavens 520 Sky 520
See Irritability	lighting Archeology	Athletics
Protection See Animals—Treat-	Human adventure 571 Architecture, Colonial	Atmosphere, Upper
ment Stories	American wing 749 Architecture, Domestic	Exploring the upper air 551.5 Atmospheric gradation 551.9
Adventures of Peter 599	Houses of the Arctic and the Tropics 728	Atmospheric pressure Air pressure in which we
Great raccoon hunt F See also Animals—	Arctic expeditions. See Arctic regions; also names	live 533
Habits and behavior	of expeditions Arctic regions	Atolls. See Coral reefs and
Treatment Our wild-life resources 799	Frontiers of the North 919.8 People who live in the	islands Attack 796.33
Animals, Aquatic. See Fresh-water fauna; Ma-	Arctic 573.4 Policing the Arctic 919.8	Atwood, Wallace Waiter Caves in limestone and
rine fauna Animals, Extinct. See Pale-	Work dogs of the North 636.7 Argentine Republic	coral growth 551.44 Study of a mountain gla-
ontology Animals, Fossii. See Pale-	Argentina 918.2 People who live on a	cier 551.31 Study of Niagara 917.47
ontology Animals, Sea. See Marine	great plain 573.4 Rollin' down to Rio 918	Study of shore features— bold shore 551.36
fauna	Under the southern cross 918	Study of shore features— low shore 551.36
Animais, Useful and harm- ful. See Zoology, Eco- nomic	Aristocrats of the flower	Work of rivers 551.48
Animals of the cat tribe 599	world 583 Arlthmetic	Nomads of the ocean 598.2
Animals of the Yellowstone 591.9 Animals of the zoo 591.5	Individual differences in	Automobile Subrigation 629.2

Automobiles	Baseball batter. See Models	Beethoven, Ludwig van (as
Automobile 629.2 Automobile lubrication 629.2	in motion 741	subject) Ludwig van Beethoven 92
Automobile lubrication 629.2 Cat and the kit 629.2	els in motion 741	Out of the silence 617.8
Dependability 629.2	Basic processes of making	Beetles
Development of transpor- tation 380	steel. See Story of steel, reels 1-2 669.1	Beetles 595.76 Beneath our feet 595.7
Everybody's business 629.213	Basket-ball	See also Japanese
Heat treatment of steel 669.1 Making an all-steel auto-	Modern basketball funda- mentals 796.32	beetles
mobile body 629.2	Basket making	Beets and beet sugar Beet and cane sugar 664.1
Metals of a motor car 629.2 Once upon a time 629.213	Arts and crafts 970.1 Bass fishing	Sugar trail 664.1
Saving seconds 629.213	Channel bass fishing off	Behavior. See Conduct of
Why be careless? 629.213	Virginia 799.1	life; Etiquet Behavior day at forty-eight
See also Ford automo-	In quest of the bronze- back 799.1	weeks 136.7
bile Autumn	Batak	Behavior of light 535 Behavior patterns at one
Four seasons 570	Battak of Sumatra 919.21 Baths	year 136.7
Aviation. See Aeronautics Avocets	Cleanliness—bathing 613.4	Behind the breakfast plate 636.4 Behind the cup 663
Wading birds 598.2	Home nursing—the bed bath 649	Behind the ropes 791.3
-	Battak of Sumatra 919.21	Behind the scenes in the
В	Battas (Sumatra). See	machine age 331.4 Behind the scenes in the
Bables. See Infants	Batteries, Electric. See	Metropolitan museum 708
Baby beavers 599	Electric batteries; Stor-	Behring, Emil Adolph von (as subject)
Baby on the rock 598.2 Baby songbirds at mealtime	age batteries Battle of the ants 595.796	Man against microbe 589.95
598.2	Battle of the centuries 595.796	Belgian cities 914.93 Belgium
Baby's day at twelve weeks	Battling with muskies 799.1 Bazaars of Cairo 916.2	Belgian cities 914.93
Bacilli. See Bacteriology	Beach, Rex Ellingwood	Belgium—the beautiful 914.93
Back of the weather fore- cast 551.5	Literary fish story 799.1	In rural Belgium 914.93
Bacon 551.5	Beadwork 591.92	See also Bruges; Brussels
Behind the breakfast	Arts and crafts 970.1	Belgium-the beautiful 914.93
plate 636.4 Bacteria. See Bacteriology	Do you know beans? 633.3	Benares
Bacteriology	Life 581	Benares 915.4 Beneath our feet 595.7
Armies of health and dis- ease 589.95	Seeds and seedlings 581 Tiger lily, vesper iris,	Benefactor (Edison) 92
Bacteria 589.95	sprouting bean 583	Benjamin Franklin 92 Benson, Frank W. (as
Getting acquainted with bacteria 589.95	Bears Adventures of Peter 599	_actor)
How plants and animals	Adventures of Peter 599 Animal and bird life in	Etcher's art 767 Bermuda
cause disease 589.95 Man against microbe 589.95	1 osemite national park 591.9	Beautiful Bermuda 917.299
Man against microbe 589.95 Bad master 614.84	Animals of the Yellow- stone 591.9	Beside the Zuider Zee 914.92 Better way of milking 637
Badgers	Bears 599	Beware the Japanese beetle
Adventures of Peter 599 Badges of honor. See Med-	Canoe trails through mooseland 591.9	Beyond the misnegers 540
als	Fish and bear tale 799.1	Beyond the microscope 540 Bible
Frontiers of the North 919.8	Some larger mammals 591.9 Tame wild life of Yo-	Geography
Bahamas	semite 591.9	Holy land 915.69
From the Bahamas to Jamaica. Church 917.29	Beasts. See Animals Beautiful Bermuda 917.299	In hallowed paths 915.69
From the Bahamas to	Beautiful Bruges 914.93	Big deeds Big game and the national
Jamaica. Eastman 917.29 Bakhtiara	Baby beavers 599	forests 634.9
Grass 915.5	Baby beavers 599 Beavers 599	Big game trails 591.9
Baking powder 664.6	Beavers at home 593	Biogeography. See Anthro-
Baking powder in frying	Canoe trails through mooseland 591.9	pogeography; Geograph- ical distribution of ani-
batter 641.5 Baking powder in frying	Furry creatures 599	mals and plants
batter 641.5	Becker, Carol Lotus	Bird and animal life in Yel- lowstone park 917.87
Bali (Island)	Becker, Carol Lotus Eve of the revolution. See	Bird homes 598.2
Alluring Bali 919.2 East Indian Island 919.2	Declaration of independ-	Bird houses
Ball. See Baseball; Basket- ball; Football	ence 973.3; Eve of the revolution 973.2	In birdland 598.2
Balloon racing 629.1	Bee. See Bees	Bird neighbors in summer
Balloons	Bee culture 595.79	Bird neighbors in winter 598.2
Balloon racing 629.1 Parade of comic balloons 629.1	Beef Meat packing 664.9	Bird refuges, National 598.2
See also Aeronautics	Beefsteak bequest 636.2	Birds
Balloons, Dirigible. See Air-	Beery, Wallace (as actor)	Animal and bird life in Yosemite national park 591.9
ships Banana land. See About	Lost world F	Bird and animal life in
bananas 634.7	Bee culture 595.79	Yellowstone park Birds of the seacoast 598.2
Bananas	Bees and spiders 595.79	Tame wild life of Yo-
Central America 917.28	Bees—how they live and work 595.79	semite 591.9
Banff national park, Alberta	Beneath our feet 595.7	Eggs and nests
Banners. See Flags 796.9	Honey bee 595.7 Realm of the honeybee 595.79	Bird homes 598.2 In birdland 598.2
Bartlett, Robert Abram (as	Bees and spiders 595.79	Life in the hedgerows 591.5
viking 639	Bees—how they live and	Our common birds 598.2
Baseball	work 595.79	Flight
Models in motion 741	Beet and cane sugar 664.1	See Flight

Birds—Continued	Body framework 611	Bread
Food	Children of Bohemia 914.37	From wheat to bread 679 Good foods—bread and
Baby songbirds at meal-	Boilers	cereals 613.2
time 598.2	Steam power 621.1 Bolivia	Our daily bread 633.1 Breadstuffs. See Flour and
Bird neighbors in sum-	Bolivia 918.4	flour mills
mer 598.2	Gateway to India 915.4	Breakfast foods. See Cereals, Prepared
Bird neighbors in winter 598.2 Birds of Bonaventure 598.2	Bonaventure island	Breaking through the Ap-
National bird refuges 598.2	Birds of Bonaventure 598.2 Bones	palachians 973.4 Breasted, Charles
Our animal friends and foes 593.2	Body framework 611	Human adventure 571
Our wild-life resource 799	Bonnie Scotland 914.1	Breasted, James Henry Human adventure 571
Roosevelt, friend of the birds 598.2	Making a book 655	Breathing. See Respiration
See also Game protec-	See also Textbooks	Breeding Beefsteak bequest 635.2
tion	Book trade. See Book in-	Blood will tell 636.2
Birds, Aquatic. See Water	dustries and trade; Publishers and publish-	Bre'r Rabbit and his pals 599
birds Birds' nests. See Birds—	ing	Bricklaying Builders 690
Eggs and nests	Books—from manuscript to classroom 655	Bridal customs. See Mar-
Birds of Bonaventure 598.2 Birds of prey	Boone, Daniel (as subject)	riage customs and rites Bridges
Birds of prey. Eastman 598.2	Daniel Boone 92 Boone trail 917.5	How Brooklyn bridge was
Birds of prey. Films of commerce 593.2	Boots and shoes	built 624 Span supreme 624
Pirates of the sky 598.2	Leather 675 Romance of shoemaking 675	See also names of spe-
Birds of the seacoast 598.2 Birds rare and fantastic 598.2	Rubber 678	cial bridges, e.g. George
Birmingham, Alabama	Borneo Dutch East Indies 919.2	Washington bridge, New York
New South 917.5	Botany	British Columbia
Birth of a tornado 551.5 Birth of the earth 520	Lupins 580 Tropic garden 580	Camp fires among snow
Bison	Tropic garden 580 Where plants live 580	peaks 917.11 Salmon fishing on the
Animals of the Yellow- stone 591.9	See also Fertilization	Skeena 639
Friends to man 636	of plants; Flowers	Through the Norway of America 917.11
Monarchs of the plains 591.9 Our four-footed helpers 599	Physiology	See also Vancouver,
	Green plant 581 Leaves 581	Canada
Bit of life in Java 919.22 Bitumen. See Asphalt	Life 591	From clay to bronze 739
Bitumen. See Asphalt Bitumingus 622.33	Plant growth 581 Plant life 581	Making of a bronze
Bituminous coal 622.33	Queer diet 581	statue 739 Brooding and rearing chicks
Bizet, Georges	Roots of plants 581 Seeds and seedlings 581	636.5
L'Arlésienne. See String choir 787	Time-lapse studies of	Brooklyn bridge, New York How Brooklyn bridge was
Bizet, Georges (as subject)	plant growth 531	built 624
Georges Bizet 92 Black-and-orange garden	See also Fertilization of plants; Germination	Brownell, Hobart Courage of Kay 640
spider 595.4	Botany, Economic	Brown-tail moth
Black Beauty F Black forest	Naturalized plant immi-	Gipsy and brown-tall moths—control methods
Black forest village 914.3	grants 580 Boulder dam	632.7
Black forest village 914.3 Blasting	Boulder dam 627.8	Gipsy and brown-tail
Dynamite — concentrated	Bowed instruments. See Stringed instruments	moths—life history 632.7 Browning, Robert
power 631.5 Modern quarry blasting 622.2	Boxing	Pied Piper of Hamelin F Bruce, Jay C.
Safety in the use of ex-	Models in motion 741	Cougar, the killer 599
plosives in open-pit iron mining 622	America's heritage 369.43	Bruce, Robert. See Robert I. king of Scotland
See also Explosives	Good turns for our forests 634.92	Bruges
Blood	Roosevelt, the great scout 92	Beautiful Bruges 914.93 Brussels
Blood 612.1 Circulation 612.1	Bragg. Sir William Henry Early experiments of	Bustling Brussels 914.93
Circulatory control 612.1	Michael Faraday 538	Buddha and Buddhism Buddhism 290
Microscopic view of blood	Brahms, Johannes (as sub- ject)	Buffalo, American. See
Blood will tell 636.2	Johannes Brahms 92	Bison
Blowfly 595.77	Brandeis, Madeleine Little Dutch tulip girl 914.92	Buffalo park, Alberta
Blue Jays Our common birds 598.2	Little Indian weaver 970.1	Monarchs of the plains 591.9 Bühler, Charlotte (Mala-
Bluebirds	Wee Scotch piper 914.1 Brass	chowski) Frau Karl
Some friendly birds 598.2 Boats, Submarine. See Sub-	From mine to consumer 669.3	Bühler Stages of child growth 136.7
marine boats	Brass choir 788 Brass Instruments. See	Stages of child growth 136.7 Builders 690
Boats and boating Boats and fishermen of	Wind instruments	Building
the Arctic and Tropics 639	Brazil 010 1	Builders 690
See also Canoes and canoeing; Motor boats	Brazil 918.1 Brazil—Amazonian low-	See also Concrete con- struction
Boats and fishermen of the	lands 918.1	Building, Iron and steel
Arctic and Tropics 639	Brazil—eastern highlands 918.1	Empires of steel 725
Bobby's bad molar 617.6 Bode, Boyd Henry	Rollin' down to Rio 918	Fabrication and erection of the Bank of Manhat-
Elementary teacher as a	Under the southern cross 918 Brazil—Amazonian lowlands	tan building 725
Body, Human. See Anat-	Brazil—Amazonian lowlands 918.1	See also Bridges
omy	Brazil—eastern highlands 918.1	Building forest roads 625.7

Building the nation. See	Robson trail 917.1	Our four-footed helpers 599
George Washington, his life and times 92	When day is done 917.1 See also names of va-	Tale of two bulls 636.2 When the cows come
Bulgaria	rious provinces and	home 636.
Children of the Balkans 914.96 Bulls. See Cattle	cities; e.g. British Co- lumbia; Montreal, Can-	See also Dairying
Burbank, Luther	ada	Diseases
Luther Burbank 92 Burden, W. Douglas	History	Clean herds—and hearts 61
Burden, W. Douglas Silent enemy Buried sunshine 622.33	Wolfe and Montcalm 973.2	Cattle ranch 636.
Buried sunshine 622.33 Burns, Robert	Militia	Caves in limestone and
Robert Burns 92	Gentlemen cadets 355 Canada's metropolis 917.14	coral growth 551.4 Ground water 551.4
Executive 658	Canada's Pacine gateway 917.11	Caves in limestone and
Business, Choice of. See	Canada's queen city 917.13 Canadian Arctic expedition,	coral growth 551.4 Cedar camps in cloudland 67
Profession, Choice of Bustling Brussels 914.93	1922	Celebes
Buswell, Guy Thomas Individual differences in	Frontiers of the North 919.8	Dutch East Indies 919.
arithmetic 511	Policing the Arctic 919.8 Canals	Living cell 59
Busybody 621,31	Panama canal. Eastman 918.6	Cells, Electric. See Electric batteries
Butcher birds. See Shrikes Butterflies	Panama canal. General electric 918.6	Cement
Animal camouflage 591.57	Canals and streets of Am-	From mountain to cement sack 691.
Butterflies and moths 595.78 Butterflies and moths 595.78	sterdam 914.92 Canned goods, See Canning	Limestone and marble 553.
Butterflies and nettles 595.78	Canned goods. See Canning and preserving	See also Concrete
Cocoon to butterfly 595.78 Comma butterfly 595.78	Canning and preserving Capping nature's finest 664.8	Central America
Life-history of the mon-	Romance of glass 666.1	Central America 917.23 In the path of the gal-
arch butterfly 595.78 Nature's handiwork 595.7	Story of a can of salmon 639 Canoe trails through moose-	leons 917.2
Butterflies and moths 595.78	land 591.9	See also Guatemala;
Butterflies and nettles 595.78	Canoes and canoeing	Honduras; Panama
Baby on the rock 598.2	Canoe trails through mooseland 591.9	Central plains 917.
Birds of prey 598.2	Nipigon trails 797.1	Ceramics. See Pottery
By the side of the road 914.2	Canton, China City that never sleeps 915.1	Cereals. See Cereals, Pre- pared; Grain
	Kwang Chow Fu 915.1	Cereals, Prepared
C	Cape Breton Random glimpses of Cape	Good foods—bread and cereals 613.
CCC accomplishments in	Breton 917.16	Ceremonles. See Etiquet
Pennsylvania 634.909 CCC fights erosion 551.3	Capping nature's finest 664.8 Capetown, Cairo to 916	Ceylon Charming Ceylon 915.49
Cabbage	Carbon monoxide	Charming Ceylon 915.49 Women workers of Cey-
Cabbage 635.3 Cabinet work	Carbon monoxide, the un- seen danger 614.8	lon 915.48
Modern industrial meth-	Carbon monoxide, the un-	Changing times in Afghan- istan 915.3
ods Cables 687	seen danger 614.8	Channel bass fishing off
New voice highways 621.385	Carbonaro, Charles J. Children grow up 173	Virginia 799. Charming Ceylon 915.48
New voice highways 621.385 Cables, Submarine	Carborundum	Cheeka, an Indian boy 970.
Laying the world's fastest ocean cable off New-	Jewels of industry 621.9 Manufactured abrasives 621.9	(Winter) See Cheeks
foundland 621.38	Care of baby chicks 636.5	(Winter). See Cheeka, an Indian boy 970.
Speeding up our deep sea cables 621.38	Care of the teeth 617.6 Carnivorous plants. See In-	Cheeka's canoe. See Cheeka, an Indian boy 970.
Cacao	sectivorous plants	Cheeka's home—(Summer). See Cheeka, an Indian
Central America 917.28 Cafe life in Paris 914.436	Carry on 917.53 Carrying American products	See Cheeka, an Indian boy 970.
Cairo, Egypt	to foreign lands 382	Chemical effects of electri-
Bazaars of Cairo 916.2 Cairo to Capetown 916	Cascade range Conquest of the Cascades 625	city 621.38 Chemical reduction. See Re-
Calcutta	See also Hood, Mount	duction, Chemical
Calcutta 915.4 Calgary, Alberta	Cassava roots. See Tapioca	Chemistry of combustion 540 Chesapeake bay
Calgary, Alberta City at the foothills 917.13	Cassava roots. See Tapioca Casting. See Plaster casts Casts, Plaster. See Plaster	Chesapeake bay 917.52
Ride 'em cowboy 917.123 California	casts	Chetoga—chief of the Ojib-
California's picturesque	Cat. See Cats	ways. See Indian tribal customs and village life
peninsula 917.94 We can take it 634.909	Cat and the kit 629.2 Cat animals 599	970.1
See also San Francis-	Cathode-ray tube 537.5	Chicago. University. Orien- tal Institute
co; Yosemite national	Cathode rays Cathode-ray tube 537.5	Human adventure 571
park	Cats	Chickadees Some friendly birds 598.2
California's picturesque pen- insula 917.94	Animals of the cat tribe 599 Pets 636	Chickens, See Poultry
Calling on the sphinx 916.2 Camels	Catskill mountains	Child life 970.1
Friends to man 636	New York water supply 628.1 Cattle	Child study Baby's day at twelve
Our four-footed helpers 599	Beefsteak bequest 636.2	weeks 136.7
Ship of the desert 636.29	Blood will tell 636.2 Cattle 636.2	Behavior day at forty- eight weeks 136.7
Optical instruments 535.8	Cattle ranch 636.2	Behavior patterns at one
peaks 917.11	Cow business 636.2 Dairy cattle and their se-	year 136.7
Camping	lection 636.2	Early social behavior 136.7 From creeping to walking
America's heritage 369.43	Dairy cattle — breeds, types, and characteris-	612.76
Canoe trails through	tics 636.2	Growth of infant behavior: early stages 136.7
mooseland 591.9 Falling waters 917.1	Dairy management 637 Friends to man 636	Growth of infant behav-

Child study—Continued Learning and growth 136.7	Pilgrims 973.2 Puritans 973.2	Clay Fire-clay refractories 666.
Life begins 136.7	Vincennes 973.3	Sand and clay 553.
Posture and locomotion 612.76 Stages of child growth 136.7	Wolfe and Montcalm 973.2 Yorktown 973.3	Clay modeling. See Model-
Study of infant behavior 136.7	Orchids lilies iris pas-	Clean herds—and hearts 61 Cleanliness. See Baths; Hy-
Thirty-six weeks behavior day 136.7	Orchids, lilies, iris, passion flower, chysanthe- mums, rose, lotus and	giene
Child welfare. See Children —Care and hygiene	mums, rose, lotus and cotton growing or open-	Cleanliness—bathing 613. Cleanliness—clean clothes 613.
Childe Hassam—artist 92	ing and seed germinat-	Cleanliness—clean face and hands 613.
Children grow up 173	Chumming with chipmunks 599	Cleanliness - keeping the
See also Child study; Indians of North Amer-	Church history—Reforma- tion. See Reformation	hair clean 61 Clearing land 631.
Indians of North Amer- ica—Children	Ciliata	Clearing of land
Care and hygiene	Simple animal forms 593 Cinema. See Moving pic-	Clearing land 631. Dynamite — concentrated
Garden of childhood 649	tures Circulation 612.1	power 631. Cliff dwellers and cliff
Life of a healthy child 649 Physical education — chll-	Circulation of the blood.	dwellings
dren aged 4-6 613	See Blood Circulatory control 612.1	Looking back through the ages 57
Physical education — chll- dren aged 7 613	Circus Behind the ropes 791.3	Visit to Mesa Verde na-
See also Infants—Care	Cities and towns	Clocks and watches
and hygiene	Growth of cities and their problems 711	Time 68 Clothing and dress
Education See Education of chil-	2	Cleanliness—clean clothes 613.
dren	Civic improvement Working with civic or-	Men's clothing industry 68
Health See Children—Care	ganizations 352	Clouds 551.
and hygiene	See also City planning	Fair weather clouds 551.
Indians of North America	Planning	Foul weather clouds 551.
See Indians of North America—Children	See City planning Citizen and his government 353	Buried sunshine 622.3 Inside story of your tele-
Psychology	Citizen and his government 353 Citizens of the future 379	phone 621.38
See Child study	Citizenshlp Service 353	Coal oil. See Petroleum Coal mines and mining
Children grow up 173	Citizenship series, by C. A. Stebbins	Anthracite coal. Eastman 622.3
Children of Bohemia 914.37 Children of Holland 914.92	Immigration 325	Anthracite coal. General
Children of Poland 914.38	Obedience 173 School beautiful 727	electric 622.3 Bituminous 622.3
Children of Scandinavia 914.8	School discipline 371.5 School industries 371.7	Bituminous coal 622.3
Children of the Balkans 914.96 Chile	Service 353	Modern coal mining 622.3 "Wildwood" a 100 percent
Chile 918.3	Serving the community 614 Thrift 339.4	mechanized mine 622.3 Coast changes
China People who live in a	Working with clvic or-	Shore deposits 551.3
crowded valley 573.4	City at the footbills 917.13	Shore lines and shore development 551.3
See also Canton, China	City by the sea 917.16 City of sunshine 917.11	Study of shore features— bold shore 551.3
China (Porcelain). See Pot-	City planning	Study of shore features—
tery Chinaware. See Pottery	Growth of cities and their problems 711	low shore 551.3 Work of waves 551.3
Chipmunks Animal and bird life in	Tale of two rivers 331.8 City that never sleeps 915.1	Coconut Life in the South seas 919.6
Yosemite national park 591.9	Civic improvement. See	Philippine islands 919.1
Chumming with chip- munks 599	Cities and towns—Civic improvement	Samoa — coco-nuts and copra 919.6
Chivalry In the days of chivalry 942.03	Civics. See Citizenship Civil government. See U.S.	Cocoon to butterfly 595.7 Cocoon to spool. See Ro-
Choice of profession. See	—Politics and govern-	mantic story of silk 677.
Profession, Choice of Choosing your vocation 371.42 Chopin, Frederick (as sub-	ment Civil war—United States.	Codfish
Chopin, Frederick (as sub-	See U.S.—History—Civil	New England fisheries—cod 63
ject) Frederick Chopin 92	war Civilian conservation corps	Codling-moth Planting and care of trees 71
Christ. See Jesus Christ Christ confounds his critics 232	at work—Arizona 634.909 Civilian conservation corps	Coffee
Christmann, Johann Fried-	at work-Colorado, Wy-	Behind the cup 66
Hurdy gurdy. See Wood- wind choir 788	oming, and South Da- kota 634.909	Coffee 66
wind choir 788 Christmas	Civilian conservation corps at work—Montana and	Magic of the mountains 66
'Twas the night before	Idaho 634.909	Gold 669.
Christmas F Chronicles of America pho-	civilian conservation corps at work—mosquito con-	Coins. See Numismatics
toplays series	trol 634.909 Civilian conservation corps	Coke Bituminous coal 622.3
Alexander Hamilton 92 Columbus 973.1	at work—Oregon and	Cole, Timothy (as subject)
Daniel Boone 92 Declaration of Independ-	Washington 634.909 Civilian conservation corps	Last of the wood engravers
ence 973.3	at work—Utah and	Coleoptera. See Beetles
Dixle 973.7 Eve of the revolution 973.2	southern Idaho 634.909 Clyilization's fabric 677.2	Colonial architecture. See
Frontier woman 978 Gateway to the West 973.2	Clara cleans her teeth 617.6	Architecture, Colonial Colonial history (United
Jamestown 973.1	Classical mythology. See	Colonial history (United States. See U.S.—History—Colonial period

Colonial life and customs.	Cooling appliances. See Re-	Story of the tire 678
See U.S.—History—Co-	frigeration and refriger-	Tale of two rivers 331.
lonial period Color of animals	ating machinery Cooper, Merian C.	Within the gates 677. Cougar hunt 59
How nature protects ani-	Grass 915.5	Cougar, the killer 59
mals 591.57	Golden fleece 677.3	Cougars. See Pumas
Civilian conservation corps	Golden fleece 677.3 Copper	Courage of Kay 644 Cow business 636.
at work-Colorado, Wy-	Chemical effects of elec-	Cowboys
oming, and South Da-	tricity 621.35	She's wiid 917.8
kota 634.909 Outdoors in Colorado 917.88	Conductor 670 From mine to consumer 669.3	Cows. See Cattle Crater lake
See also Mesa Verde	Industrious diamonds 621.9	Roads to wonderland 917.
national park	Inside story of your tele- phone 621.385	Crawfish. See Crayfish
Colorado river-Boulder dam	Long drawn out 621.385	Crayfish Crayfish-stickleback 597
project. See Boulder	Manufacture of Anaconda	Day at the river 59
Colored people. See Negroes	sheet copper 669.3	Crayfish-stickleback 597
Columbus, Christopher (as subject)	Mining and smelting of copper 669.3	Creation Birth of the earth 520
Subject) Columbus 973.1	Story of copper milling 669.3	Creative approach to educa-
Combustion	Story of copper mining 669.3	cation 370. Crickets
Chemistry of combustion 540	Story of copper refining 669.3 Story of copper smelting 669.3	Beneath our feet 595.7
Comma butterfly 595.78	Story of the fabrication of	Crockery. See Pottery
Modern commerce 380	copper 669.3	Crocodiles
Common salt 664.4	Copper and brass associa-	Jungle giants 599
Communication and traffic	Story of copper milling 669.3	See also Alligators
Electrical transmission of	Story of copper mining 669.3	Croneis, Carey Gardiner Atmospheric gradation 551.9
speech 621.38	Story of copper refining 669.3 Story of copper smelting 669.3	Mountain building 551.4
Wizardry of wireless 621.38	Copra	Volcanoes in action 551.2
Communing with the heavens 520	Samoa — coco-nuts and copra 919.61	Work of rivers 551.48 Cross-ties. See Railroads—
Compressed air	Corol reefs and islands	Ties
Compressed air 621.5	Beautiful Bermuda 917.299 Caves in limestone and coral growth 551.44	Crustacea
Construction that endures	Caves in limestone and	Beach and sea animals 591.92 Crystal champions 797.2
693.5	coral growth 551.44 Corelli, Arcangelo	Crystallization, See Crystal-
Concrete construction	Gavotte in F. See Wood-	lography Crystallography
Concrete road construc- tion 625.7	wind choir 788 Cormorants	Spectacular experiments
Skilled mechanic 621	Birds of the seacoast 598.2	in crystallization 540
Concrete road construction 625.7	Birds rare and fantastic 598.2	Cuba From the Bahamas to
Conduct of life	Nomads of the sea 598.2	From the Bahamas to Jamaica. Church 917.29
Girl who found herself 170	Corn 633.1	From the Bahamas to
Learning to live 170 Conductor 670	History of corn 633.1	Jamaica, Eastman 917.29
Conflagrations, See Fires	Diseases and pests	Island of sugar 664.1 Cumberland gap
Conowingo 621,312	Corn and the borer 632.7	Boone trail 917.5
Conquering the desert 677.2 Conquering the jungle 678	Corn borer and what to do about it 632.7	Currents, Electric. See Electric currents
Conquering the wilderness.	do about it 632.7	Cuttlefish
Conquering the wilderness, See George Washington, his life and times 92	Old Jake wakes up 632.7	Molluses 594
his life and times 92	Corn and the borer 632.7 Corn borer. See Corn—Dis-	Cycle of erosion 551.3
Conquest of New France.	eases and pests	Czechoslovak Republic Children of Bohemia 914.37
Wrong, G. M. See Gate-	Corn borer and what to do	
Conquest of diphtheria 616.2 Conquest of New France. Wrong, G. M. See Gateway to the West 973.2; Wolfe and Montcalm 973.2	about it 632.7 Corpulence	
Conquest of the Cascades 625	Too many pounds 613.2	D
Conquest of the forest. Ca- nadian gov't. 674	Correct shorthand technique 653	Dagwan-the medicine man.
nadian gov't. 674 Conquest of the forest. Gen-	Cosmogony. See Universe Cosmography. See Universe	See Indian tribal cus-
eral electric 674	Cosmology. See Universe	toms and village life 970.1
Consequences 616.24	Conductor 670	Daily life of the Egyptians —ancient and modern 932
Constellations. See Astron- omy	Cotton buds and cotton	Dairy cattle and their se-
Construction. See Building	balls 677.2	lection 636.2
Construction, Concrete. See Concrete construction	Orchids. lilies, iris, pas- sion flower, chysanthe-	Dairy cattle-breeds, types.
Construction of roads. See	mums, rose, lotus and	and characteristics 636.2
Roads	cotton growing or open-	Dairy management 637
Construction that endures 693.5 Consumption. See Tubercu-	ing and seed germinat- ing 583	Dairying
iosis	Cotton buds and cotton	Blood will tell 636.2 Dairy cattle and their se-
Contagion and contagious	balls 677.2	lection 636.2
diseases	Cotton, from seed to cloth 677.2	Dairy cattle — breeds,
Prevention	Cotton goods 677.2	types, and characteris- tics 636.2
Disease carriers 614	Cotton growing 677.2	Dairy management 637
How disease is spread 614 How to prevent disease 614	Cotton growing and manu-	Milk as food 637
Continent of South America 918	facture Civilization's fabric 677.2	When the cows come
Cookery	Conquering the desert 677.2	home 636.2
Baking powder in frying batter 641.5	Cotton, from seed to cloth	Wisconsin dairies 637
Making pork pies 641.5	Cotton goods 677.2	See also Cattle; Milk Dancing
Making pork pies 641.5 Making rabbit pies 641.5 Coolidge, William David	Cotton growing 677.2	Japanese cabaret 793.3
Cathode-ray tube 537.5 Thomas A. Edison 92	Inside story of your tele- phone 621.385	Models in motion 741
Thomas A. Edison 92	Dhone 621.385	Samoa — coco-nuts and

Daniel Boone 92 Daniel Webster 92	Ditmars, Raymond Lee Cat animals 599	Earth and worlds beyond 520 Earthenware. See Pottery
Dan's decision 610	Tortoises 598.1	Earthquakes
Daughter of the glaciers 917.123 David Livingstone 92	Diving Crystal champions 797.2	Earthquakes 551.2 Fleet ho 359
Day at the river 597	Dixie 973.7	What causes earthquakes
Day of the confederacy. Stephenson, N. W. See	Do you know beans? 633.3 Doctor 610	Earth's rocky crust 551.2
Dixie 973.7	Dodders	Earthworms
Declaration of independ-	Dodder 583 Dodge automobile	Earthworm 595.1 East Africa 916.7
ence. See U.S.—Declara- tion of independence	Dependability 629.2	East Indian island 919.2
Deer	Adventures of Peter 599	East Indies, Dutch. See Bali; Celebes; Java;
Animal and bird life in Yosemite national park 591.9		Sumatra
Animals of the Yellow-	Trail mates 917.98	Eastern woodchuck and its control 632.6
stone 591.9 Friends to man 636	Work dogs of the North 636.7 Doings of Turp and Tine 665.3	control 632.6 Eckener, Hugo (as subject)
Our four-footed helpers 599 Regulated deer hunting 799.2	Domestic architecture. See	Magellan of the air 629.1
Regulated deer hunting 799.2	Architecture, Domestic Domestic economy. See	Eclipse of the sun 520 Eclipses
Some larger mammals 591.9 Tame wild life of Yo-	Home economics Domestic science. See Home	Eclipse of the sun 520
semite 591.9 With gun and dog 799.2	economics	Solar eclipse of August 31, 1932 520
Defoe, Daniel	Down at our pond 597.8	Economic botany, See Bot-
Robinson Crusoe F Delaware	Down North 917.12	any, Economic Edison, Thomas Alva (as
Civilian conservation corps	Doyle, Sir Arthur Conan Lost world F	subject) Benefactor 92
at work— mosquito con- trol 634.909	Lost world F Drafting, Mechanical. See	Life of Thomas A. Edison 92
DeMille, Cecil B.	Mechanical drawing	Mazda lamps preferred 621.32 Thomas A. Edison 92
King of kings 232 Denmark	Pond and stream life 591.92	Education 92
Denmark 914.89	Pond insects 591.92	Free schools—hope of democracy 379
Dependability 629.2 Deserts	Models in motion 741	•
Arid Southwest 917.91	Dress. See Clothing and	Great Britain Citizens of the future 379
People who live in the desert 573.4	dress Drinking health 613	
Wanderers of the Arabian	Drive is on 674 Dromedaries. See Camels	Philosophy Creative approach to edu-
desert 915.3 Desjardines, Pete (as sub-	Drypoint 767	_ cation 370.1
ject)	American eider duck 636.59	Dynamic learning 370.1
Crystal champions 797.2 Development 591.3	Mallard duck in Oregon 598.2	Education, Creative approach to 370.1
Development of a bird em- bryo 591.3	Nimrods in duckland 598.2 Nomads of the sea 598.2	Education, Elementary. See
Development of transporta-	Duff, Walter Raymond (as	Education of children
tion 380 Dewey, John (as subject)	actor) Etcher and his art 767	Education, Primary. See Education of children
Dynamic learning 370.1	Dutch and English on the	Education of children
Working for dear life 613	Hudson. See Peter Stuyvesant 973.2	Elementary teacher as a guide 372
Diamonds	Dutch East Indies 919.2	Primary teacher at work 372
Industrious diamonds 621.9 Dickson, Deane H.	Forest people of Central	Teaching of reading 372.4
Mediterranean mecca 914.6	Africa 916.7	Educational measurements. See Mental tests
Food 613.2	Dwellings. See Architecture, Domestic	Efficiency, Household. See
Food and growth 613.2	Dynamic learning 370.1	Home economics
Food makes a difference 613.2 Too many pounds 613.2	Dynamite — concentrated	Egg marketing industry in the United States 636.5
Digestion	power 631.5	Eggs
Digestion 612.3 See also Diet; Diges-	Modern Hercules 662.2 Story of dynamite 662.2	Egg marketing industry in the United States 636.5
tive organs	Dynamite — concentrated 631.5	Layers or loafers 636.5
Digestive organs Digestion 612.3	power	Egypt
F12 2	E	Daily life of the Egyp- tians—ancient and mod-
Digging into the past 932 Digging up the past 560	Eagles	ern 932
Dinosauria	Birds of prey. Eastman 598.2 Birds of prey. Films of	Egypt; land of the pyra- mids 916.2
Digging up the past 560	commerce 598.2	Through oil lands of Eu-
Conquest of diphtheria 616.2	Pirates of the sky 598.2	rope and Africa—Po- land, Greece, and Egypt
Diphtheria 616.2 Man against microbe 589.95	How we hear 617.8	665.5
Dirigible balloons. See Air-	See also Hearing	See also Cairo, Egypt; Sphinx
Disease, How to prevent 614	Early care of baby chicks. See Care of baby chicks	Antiquities
Disease carriers 614	636.5	Daily life of the Egyp-
Disease germs. See Bacte-	chael Faraday 538	tians-ancient and mod-
riology Disobedience. See Obedience	Early social behavior 136.7	Digging into the past 932
Distribution of animals and	Earth Atmospheric gradation 551.9	Temples and tombs of ancient Egypt 932
plants. See Geographical distribution of animals	Rotation	Egypt: land of the pyra-
and plants	Earth and worlds beyond 520	mids 916.2
District nurses. See Nurses	The earth 551	Egyptian dancer. See Mod- els in motion 74
and nursing Ditches	Earth and its life. See Harvard university natural	Egyptology. See Egypt-
Preparing to irrigate 626.8	science series	Antiquities

Electric apparatus and ap-	Electromagnets	Frontiers of the North 919.8
pliances Electrical transmission of	Magnetic effects of elec- tricity 538	Houses of the Arctic and the Tropics 728
speech 621.38	Electroplating	Nanook of the North 919.8
Electric apparatus and appliances, Domestic	Chemical effects of electricity 621.35	Nanook, the Eskimo 919.8 Policing the Arctic 919.8
pliances, Domestic Courage of Kay 640 Electric batteries	Electrostatics Electrostatics. Erpi 537	Etcher and his art 767 Etcher's art 767
Chemical effects of elec-	Electrostatics. Soc. for	Etching
tricity 621.35	visual educ. 537 Elementary animals 593	Drypoint 767 Etcher and his art 767
Electric currents High frequency currents 537	Elementary education, See	Etcher's art 767
Induced currents 621.31 Electric generators	Education of children Elementary teacher as a	Etchings _Etcher's art 767
Induced currents 621.31 Electric heat in industry 697	guide 372 Elephants	Ethics, Practical. See Con- duct of life
Electric heating	Jungle giants 599	Ethiopia
Electric heat in industry 697 Heat and light from elec-	Pageantry of India 915.4 Three jungle giants 599	Ethiopia 916.3 Etiquet
tricity 621.3 Electric lamps	Lievators	Japanese table manners 395 Evangeline, Land of 917.16
Cat and the kit 629.2	Elk	Eve of the revolution.
Conductor 670 Mazda lamp manufactur-	Animal and bird life in Yosemite national park 591.9	Becker, C. L. See Declaration of independ-
ing 621.32	Monarchs of the plains 591.9	ence 973.3; Eve of the revolution 973.2
Mazda lamps preferred 621.32 Thomas A. Edison 92	Some larger mammals 591.9 Embryology	Evening primrose, mari-
Electric light. See Electric lighting	Birds	posa tulin. Washington
Electric lighting	Development of a bird	lily, hen and chickens, and others 583
Heat and light from electricity 621.3	embryo 591.3 Embryology of the egg 591.3	Every swimmer a life-saver 614.8
Illumination 621.32	Fishes	Everybody's business 629.213
Electric lines	Development 591.3	Evolution of the oil indus- try 665.5
Poles	Embryology of the egg 591.3 Emerald isle 914.15	Excavations (Archeology),
Cedar camps in cloudland 674 Far western cedar trails 674	Emergencies, See First aid	See Archeology Executive 658
Land of the white cedar 674	in illness and injury	Executive ability Executive 658
Electric motor Busybody 621.31	Employment of women. See	Experiments in conduction
Electric needle 671W	Enemy of the forest 624 02	Exploring the upper air 551.5
Electric power in mining. See Electricity in min-	Energy. See Force and en-	Explosives
ing Electric power in the south-	Energy and its transforma-	Explosives engineer 662.2 Modern Hercules 662.2
ern Appalachians 621.312	Energy and work 621.312	See also Blasting:
Electric power plants Energy and work 621.312	Energy from sunlight cost	Dynamite Explosives engineer 662.2
From coal to electricity 621.312	Engine lathe and its operation 621.9	Extinct animals, See Pale-
Electric railroads	Engineers	ontology Eye
Transportation 385 Electric ship 917	England 620	Eyesight 617.7
Electric transformers	By the side of the road 914.2	How you see How's your eyesight? 617.7
Electric welding	From London to Paris by	Preventing blindness and saving sight 617.7
Electric needle 671W Hottest flame in the	Shakespeare 914.2 This was England 630.942	Eyes of science 535.8
world 671W	History	Eyesight 617.7
Ties of steel 625 Electrical transmission of	_See Great Britain—	T2
speech 621.38	History	F
From coal to electricity	North America 973 1	Fabrication and erection of the Bank of Manhattan
Magic versus science 793.8	Ensions, See Flage	building 725
Story of power 621	Environment. See Adapta- tion (Biology); Anthro- pogeography; Man—In-	Face Cleanliness—clean face
History	indefice of environment	and hands 613.4
Benefactor 92	rosion	Fairy tales
Electricity, Chemical effects of 621.35	Atmospheric gradation 551.9	Once upon a time Fall. See Autumn 629.213
Electricity and magnetism	CCC fights erosion 551.3 Cycle of erosion 551.3	Falling waters 917.1
series, by H. B. Lemon Electromagnetic induction 533	The earth 551	Falling waters of Yosemite 917.94
Electromagnetism 538	Formation of soil 551.3 Sculpture of the land by	Family
Electrostatics 537 High frequency currents 537	rivers 551.48	Children grow up 173 Early social behavior 136.7
Magnetism 538	land 551.3	Obedience 173 Family album 621.38
Electricity in mining Modern coal mining 622.33	Work of rivers. Erpi 551.48 Work of rivers. Soc. for	Far western cedar trails 674
Electricity in the home. See Electric heating; Elec-	visual educ. 551.48 Work of running water 551.48	Faraday, Michael (as subject)
tric lighting Elec-	Work of the atmosphere 551.3	Early experiments of Michael Faraday 538
Electrodeposition of metals.	Work of the river 551.48 Work of waves 551.36	Farm 630
See Electroplating Electromagnetic Induction 538	Eskimo travel. See Nanook,	Farm, Trip to the
Electromagnetic Induction 538 Electromagnetism	the Eskimo 919.8 Eskimos	Farm machinery. See Agricultural machinery
Electromagnetic induction 538 Electromagnetism 538	Boats and fishermen of	Farm management

Farm produce	Final and annual and automatic	man a second sec
Farm produce	First aid—care of minor	Fletcher, Harvey
Marketing	wounds 614.8	Fundamentals of acoustics 53
Egg marketing industry	First aid—carrying the in- jured 614.8	Sound waves and their
in the United States 636.5	First aid—control of bleed-	sources 53 Flickers
Marketing live poultry 631.18	ing 614.8	In birdland 598.
Farmer 630	First aid-life saving and	Our common birds 598.
Farmers of Formosa 630.952	resuscitation 614.8	Flies 538.
Farming. See Agriculture	First aid in illness and injury	Blowfly 595.7
Farms	Artificial respiration 614.8	Fly as a disease carrier 595.7
Farm 630	Carbon monoxide, the un-	Greenbottle fly 595.7
Farther, faster and safer 380	seen danger 614.8	House fly. Eastman 595.7
Fat. See Corpulence	Every swimmer a life-	House fly. Erpi 595.7
Fathers of New England.	saver 614.8	Our common enemy—the
Andrews, C. M. See Pil-	First aid—care of minor wounds 614.8	fly 595.7
grims 973.2; Puritans 973.2	First aid—carrying the	Serving the community 61
Fauna. See Fresh-water fauna; Marine fauna	injured 614.8	White flies and tomatoes 632. Flight
Fauna, Prehistoric. See Pa-	First aid—control of	Nature's gliders 598.
leontology	bleeding 614.8	Flotow, Friedrich, frieherr vo
Feather river, California	First aid—life saving and	Martha. See Milady's es-
Nature's frozen credits 621.312	resuscitation 614.8	capade
Feet 613	Learn and live 614.8	Flour and flour mills
Felix Mendelssohn 92	Fish. See Fishes	From wheat to bread 67
Felling forest giants 674	Fish and bear tale 799.1	Flower gardening. See
Fern 587	Fish and fishing for every- body 639	Flowers
Ferns	body 639 Fish culture	Flower life in Yosemite na-
Fern 587	Fish and fishing for	tional park 58 Flowers
Flowers at work 583	everybody 639	Evening primrose, marl-
From flower to fruit 583	Fish hatcheries. See Fish	posa tulip, Washing-
Fruits and flowers 635	culture	ton lily, hen and
Few tests of child intel-	Fisher, George Clyde	chickens, and others 58
ligence 371.26	Beach and sea animals 591.92	Flower life in Yosemite
Field sports. See Hunting	Nature study series	national park 58
Fifty-two pay checks each	Fisheries Chesanoaka hay 917.52	Flowers 58
year 331.2	Chesapeake bay 917.52 From catch to can 639	Flowers at work 58
Fighting forest fires 614.84	From catch to can 639 Maintaining the salmon	From flower to fruit 58 Orchids, lilies, iris, pas-
Fiji islands Boats and fishermen of	supply 639	sion flower, chrysan-
the Arctic and Tropics 639	On the Skeena river 639	themums, rose, lotus
Houses of the Arctic and	Salmon fishing on the	and cotton growing or
the Tropics 728	Skeena 639.2	opening and seed ger-
Films. See Photography—Films	Trapping tuna 639.2	minating 58
Finding his voice 778	See also Fishes	Springtime miracle 58
Finland	Fishes	Wild flowers. Eastman 58
Finland 914.71	Day at the river 597	Wild flowers. U.S. agrlc. 58
Finley, Mrs Irene (Barnhart)	Development 591.3	See also Botany; Fer-
Chumming with chip- munks 599	Marauders of the sea 593.9	tilization of plants
munks 599 Hummingbirds 598.2	See also Fisheries:	Flowers at work 58
Finley, William Lovell	Fishing; also names of	Fly. See Flies
Chumming with chip-	special fishes, e.g. Sal-	Fly as a disease carrier 595.7
munks 599	mon	Flying across America in 16
Hummingbirds 598.2	Fishin' time 799.1	hours with United air lines 629.
Mallard duck in Oregon 598.2	Fishing	Food 613.:
Fire	Angler's idyll 799.1	Food adulteration and in-
Fire and heat 536	Battling with muskies 799.1	spection
Fire making 536	Boats and fishermen of	Keeping out bad food 614
See also Fires	the Arctic and Tropics 639 Fish and bear tale 799.1	Food and growth 613.
	Fishin' time 799.1	Food inspection. See Food
History	Harvesting the deep 639	adulteration and inspec-
Light of a race 628.9	Inshore fishing on the	tion
Fire and heat 536	Atlantic coast 639	Food makes a difference 613.2 Food shot from guns 633.
Fire-clay refractories 666.4	Invading muskieland 799.1	Foot
Fire extinction	Laurentian lures 917.14	Feet 613
Fire protection 614.84	Literary fish story 799.1	Football
Fire making 536	New England fisherles— cod 639	Attack 796.33
Fire prevention Bad master 614.84	Now England daharias	Fundamentals of foot-
Enemy of the forest 634.92		1 11
Enemy of the forest 634.92 Fighting forest fires 634.92	New England fisheries— mackerel 639	ball 796.33
Fire prevention 614.84	mackerel 639	ball 796.33 Modern football funda-
	mackerel 639 Salmon angling on the Restigouche 917.15	ball 796.33 Modern football funda- mentals 796.33
Fire protection 614.84	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639	ball 796.33 Modern football funda- mentals 796.33 Training and practical
Fire protection 614.84 Fire safety 614.84	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.84	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 530
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.84 Fire protection 614.84 Fire safety 614.84	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 530 Ford, Henry Jones
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Firearms 614.84	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 630 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 530 Ford, Henry Jones Washington and his col-
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.84 Fire protection 614.84 Fire safety 614.84 Fire safety 614.84 Firearms Ask Daddy 614.8	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 630 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star span-	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 530 Ford, Henry Jones Washington and his col- leagues. See Alexander
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Firearms Ask Daddy 614.8 Firearms of our fore-	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations Ford, Henry Jones Washington and his col- leagues. See Alexander Hamilton 92
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Firearms Ask Daddy 614.8 Firearms of our forefathers 683	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J.	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 530 Ford, Henry Jones Washington and his col- leagues. See Alexander Hamilton Ford automobile
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Fire safety 614.84 Firearms Ask Daddy 614.8 Firearms of our forefathers 683 Firearms of our forefathers 683	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J. Nanook of the North 919.8	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 530 Ford, Henry Jones Washington and his col- leagues. See Alexander Hamilton 92 Ford automobile Rhapsody in steel 629.2
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Firearms Ask Daddy 614.8 Firearms of our fore- fathers 683 Firearms of our forefathers 683 Fireplaces	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J. Nanook of the North 919.8 Flatworm	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 530 Ford, Henry Jones Washington and his col- leagues. See Alexander Hamilton Ford automobile Rhapsody in steel 629.2 Forceasting, Weather, See
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Fire safety 614.84 Firearms Ask Daddy 614.8 Firearms of our forefathers 683 Firearms of our forefathers 683	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J. Nanook of the North 919.8	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 530 Ford, Henry Jones Washington and his col- leagues. See Alexander Hamilton Ford automobile Rhapsody in steel 629.2 Forecasting, Weather, See Weather forecasting
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Fire arms 614.84 Firearms of our forefathers 683 Firearms of our forefathers 683 Fireplaces Hot air heating 697 Fireproofing	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J. Nanook of the North 919.8 Flatworm Living cell 593 Flax	ball 796.33 Modern football funda- mentals 796.33 Training and practical hints 795.33 Force and energy Energy and its trans- formations 536 Ford, Henry Jones Washington and his col- leagues. See Alexander Hamilton Ford automobile Rhapsody in steel 629.2 Forecasting, Weather. See Weather forecasting Foreigners. See Citizenship
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Fire safety 614.84 Firearms Ask Daddy 614.8 Firearms of our forefathers 683 Firearms of our forefathers 683 Fireplaces Hot alr heating 697 Fireproofing Fire prevention 614.84	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J. Nanook of the North 919.8 Flatworm Living cell 593 Flax From flax to linen 677.1	ball 796.3 Modern football fundamentals 796.3 Training and practical hints 795.3 Force and energy Energy and its transformations Ford, Henry Jones Washington and his colleagues. See Alexander Hamilton Ford automobile Rhapsody in steel 629.2 Forecasting, Weather. See Weather forecasting Foreigners. See Citizenship Forest and health 634.9
Fire protection 614.84 Fire safety 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Firearms 614.84 Firearms of our fore- fathers 683 Firearms of our forefathers 683 Fireplaces Hot air heating 697 Fireproofing Fire prevention 614.84 Fires	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J. Nanook of the North 919.8 Flatworm Living cell 593 Flax From flax to linen 677.1 Inside story of your tele-	ball 796.33 Modern football fundamentals 796.33 Training and practical fundamentals 796.33 Force and energy Energy and its transformations 530 Ford, Henry Jones Washington and his colleagues. See Alexander Hamilton 92 Ford automobile Rhapsody in steel 629.2 Forecasting, Weather. See Weather forecasting Foreigners. See Citizenship Forest and health 634.9 Forest and water 628.1
Fire protection 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Fire safety 614.84 Firearms Ask Daddy 614.8 Firearms of our forefathers 683 Firearms of our forefathers 683 Fireplaces Hot alr heating 697 Fireproofing Fire prevention 614.84	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J. Nanook of the North 919.8 Flatworm Living cell 593 Flax From flax to linen 677.1 Inside story of your telephone 621.385	ball 796.3 Modern football funda- mentals 796.3 Training and practical hints 795.3 Force and energy Energy and its trans- formations 530 Ford, Henry Jones Washington and his col- leagues. See Alexander Hamilton Ford automobile Rhapsody in steel 629.2 Forecasting, Weather. See Weather forecasting Foreigners. See Citizenship Forest and health 634.9
Fire protection 614.84 Fire safety 614.84 Fire safety 614.84 Fire prevention 614.24 Fire protection 614.84 Fire safety 614.84 Firearms 614.84 Firearms of our fore- fathers 683 Firearms of our forefathers 683 Fireplaces Hot air heating 697 Fireproofing Fire prevention 614.84 Fires	mackerel 639 Salmon angling on the Restigouche 917.15 Shark fishing 639 Tigers of the North 799.1 With rod and fly 799.1 With rod and fly 799.1 See also Bass fishing Flags Hats off 929.9 Story of the Star spangled banner 929.9 Flaherty, Robert J. Nanook of the North 919.8 Flatworm Living cell 593 Flax From flax to linen 677.1 Inside story of your tele-	ball 796.33 Modern football fundamentals 796.33 Training and practical fundamentals 796.33 Force and energy Energy and its transformations 530 Ford, Henry Jones Washington and his colleagues. See Alexander Hamilton 92 Ford automobile Rhapsody in steel 629.2 Forecasting, Weather. See Weather forecasting Foreigners. See Citizenship Forest and health 634.9 Forest and water 628.1

Forest fires Enemy of the forest 634.92	Freezing. See Refrigeration and refrigerating ma-	Fur trade
Fighting forest fires 634.92	chinery	Fur industry of the United States 636.9
Forest fire fighters of the skies 634.92	French and Indian war. See U.S.—History—	Furnaces Hot air heating 697
Forest fires or game? 799	French and Indian war,	Furniture
forests 634.92	1755-1763 French explorations in	Furniture making 684 Furniture, American
It might have been you 634.92 Forest fires or game? 799	North America 973.1 French language	American wing 749
Forest or wasteland 634.9	La gare 440	Furniture, American
Forest people of Central 916.7	Pronunciation	Furniture making 684 Furry creatures 599
Forest products Cedar camps in cloudland 674	French "U" 440 French "U" 440	000
Forest reserves	Frequency curves 311	
Good turns for our forests 634.92	Fresh-water fauna Pond and stream life 591.92	G
Roads from surf to sum- mit 917.9	Pond insects 591.92 Friends to man 636	Gad, Johannes
See also Forests and	Frog. Edited pictures 597.8	Valves of the heart in action 612.1
forestry	Frog. Erpi 597.8 Frogs	Galleries (Art). See Art-
A B C of forestry 634.9	Down at our pond 597.8	Galleries and museums Game birds 598.2
Big game and the nation- al forests 634.9	Frog. Erpi 597.8	Game protection Big game and the na-
Building forest roads 625.7	Frogs, toads, and sala- manders 597.8	tional forests 634.9
Enemy of the forest 634.92 Fighting forest fires 634.92	Frogs, toads, and sala-	Forest fires or game? 799 Our wild-life resource 799
Forest and health 634.9	manders 597.8 From catch to can 639	Games
Forest and wealth 634.9	From clay to bronze 739 From coal to electricity 621.312	"ball handling" games 796
Forests and men 634.9 634.909	From cocoon to butterfly.	Summer playing field ac- tivities 796
Forests and streams 634.9 Forests serve man 634.9	See Cocoon to butterfly 595.78	Garden architecture. See Landscape gardening
How forests serve 634.9	From cocoon to kimona 677.4 From cocoon to spool. See	Garden of childhood 649
Reforestation 634.9 Unburned woodlands 799	Romantic story of silk	Gardening Fruits and flowers 635
See also Lumbering	From creeping to walking	Growing things 635
Forests and men 634.909 Forests and streams 634.9	From desert sands to spar-	Preparing for a garden 635 La gare 440
Forests serve man 634.9	kling glass creations 666.1	Gas and oil engines Four-stroke cycle gas en-
Forgive us our debts. See note under Christ con-	From flax to linen 677.1 From flower to fruit 583	_ gine 621.4
founds His critics, class 232 Formation of soil 551.3	From Haiti to Trinidad 917.29 From London to Paris by	tion, operation, and
Formation of volcanoes and	air 914	care of the internal- combustion engine 621.4
geysers 551.2	From mine to consumer 669.3 From mountain to cement	Story of the gasoline mo-
Push car trails in Formosa 915.29	sack 691.5 From the Bahamas to Ja-	Transportation 380
See also Agriculture-	maica. Church 917.29	Gas engines. See Gas and oil engines
Formosa Fossils. See Paleontology	From the Bahamas to Ja- maica. Eastman 917.29	Gases
Foster, Stephen Collins (as	From tree to newspaper 676 From wheat to bread 679	Molecular theory of mat- ter 539
Stephen Foster. Fitzpatrick 92	Frontier and pioneer life	Gasoline Potroloum the Hamiland
Stephen Foster. Gutlohn 92 Foul weather clouds 551.5	Breaking through the Appalachians 973.4	Petroleum, the liquid min- eral 665.5
Found in Morocco 916.4	Frontier woman 978 Pony express F	Story of gasoline 665.5
Fountain pens. See Pens 4-H clubs	Settling the Ohio valley 973.4	Gasoline engines. See Gas and oil engines
Carry on 917.53 Four men and the soy 633.3	Frontier woman 978 Frontiers of the North 919.8	Gaspé peninsula Rambles in Gaspesia 917.14
Four seasons 570	Fruit Good foods—fruits and	Gates, Arthur Irving
Four seasons in Japan 915.2 Four-stroke cycle gas engine	vegetables 613.2	Teaching of reading 372.4
Fowls. See Poultry 621.4	See also Fruit culture; also names of special	Gateway to India 915.4 Gateway to the West 973.2
Fox, Dixon Ryan	fruits, e.g. Apple	General electric company
Peter Stuyvesant 973.2 France	Canning	(as subject) Big deeds 621.3
From London to Paris by air 914	See Canning and pre- serving	Thomas A. Edison 92
Through oil lands of	Fruit culture	General health habits 613
Germany, France, Spain,	Where nature smiles 634 Fruits and flowers 635	General science series, by Morris Meister
Morocco, and Algeria 665.5 See also Normandy:	Fuel, Liquid. See Gasoline Fun at the seashore	Air 533 Communication 621.38
Paris	Fundamentals of acoustics 534	The earth 551
Franklin, Benjamin (as sub- ject)	Fundamentals of football. See Modern football	Energy and work 621.312 Fire and heat 536
Benjamin Franklin 92	fundamentals 796.33	Transportation 582
Franz Liszt 92 Fraser, Mrs Laura (Gar-	Fungi Fungus plants 589.2	Water 628.1
dln)	Funal, Edible. See Mush-	Generators, Electric. See Electric generators
Medal maker 737 Frederick Chopin 92	rooms Fungus plants 589.2	Gentlemen cadets 355
Free schools-hope of de-	Fur industry of the United	Geographical distribution of man. See Anthropogeog-
mocracy 379	States 636.9	ranhy

Geographical distribution of plants and animals	Gipsy moth Gipsy and brown-tail	Grain
Big game trails 591.9	moths—control methods	Good foods—bread and cereals 613.
Rocky mountain mam- mals 591.9	Gipsy and brown-tail	See also names of the
Where plants live 580	moths—life history 632.7	various cereal plants, e.g. Corn
Geography, Biblical. See Bible—Geography	Giraffes Jungle giants 599	Granada
Geography, Physical, See	Our four-footed helpers 599	In old Granada 914.
Physical geography	Girl who found herself 170 Giuseppe Verdi 92	Granite Sand and clay 553.
Geography, Social. See Anthropogeography	Glacier national park	Graphic methods
Geological work of ice 551.31	Glacier national park 917.86	Frequency curves 31 Grass 915.
Geology, Dynamic. See Geo- physics	Men who build the roads 625.7 Glaciers	Grasshopper 595.
Geometry	Geological work of ice 551.31 Glaciers 551.31	Gravitation The earth 55
Play of imagination in geometry 513	Study of a mountain	Gray armada 35
Geophysics	glacier 551.31	Grease. See Lubrication and lubricants
	Glass, Stained. See Glass painting and staining	Great Britain
George Frederick Handel 92 George Washington 92	Glass blowing and working	Colonies
George Washington, his life and times 92	Glass blowing, with speci- mens of ancient and	English settlements in
George Washington bridge,	mens of ancient and mediaeval blown glass 666.1 Glass blowing technique 666.1	North America 973.
New York Span supreme 624	Glass blowing technique 666.1 Glass blowing, with speci-	History—Plantagenets,
Georges Bizet 92	mens of ancient and	1154-1399 In the days of chivalry 942.0
Germany Black forest village 914 3	mediaeval blown glass 666.1 Glass magic 666.1	Great Lakes
Black forest village 914.3 In old Hessen 914.3	Glass manufacture	Transportation on the
Peasant wedding in Hesse 392 People who live through	From desert sands to spar- kling glass creations 666.1	Great Lakes 38 Great plains 917.
industry 573.4	Glass blowing technique 666.1	Great plains 917. Great raccoon hunt I Great waters of Versailles
Romantic Rhine 914.3 Through oil lands of	Glass magic 666.1 Romance of glass 666.1	Great waters of Versailles 914.
Europe and Africa—Ger-	Sand and clay 553.5	Greece
many, France, Spain, Morocco, and Algeria 665.5	Making of a stained-glass	Children of the Balkans 914.9
See also Black forest;	window 748 Glimpse of New Zealand 919.31	Through oil lands of Europe and Africa—
Rhine river	Glimpses of Greenland 919.8	Poland, Greece, and
History	Glimpses of Greenland 919.8 Glimpses of Vienna 914.36	Egypt 665.
Noerdlingen—annum 1634 943	Gluesing, W. A. (as actor) Magic versus science 793.8	Greek mythology. See My- thology. Classical
	Gnus	thology, Classical Green plant Greenbottle fly 595.7
Germinating, and black- berry lily 583	Our four-footed helpers 599 Goats	
	Friends to man 636 Going to Volendam 914.92	Market gardening 63
Growing things 635 How seeds germinate 631.5 Testing seeds in soil 631.5	Gold 914.92	Greenland Glimpses of Greenland 919.
Testing seeds in soil 631.5 Germs. See Bacteriology	Gold 669.2	Grenfell, Sir Wilfred Thom-
Gesell, Arnold Lucius	Inside story of your tele- phone 621.385	ason (as subject) Viking 63
Baby's day at twelve weeks 136.7	Golden fleece 677.3 Golden gate 979.4	Ground water 551.4
Behavior day at forty-	Golden health. See Golden	Animal and bird life in
eight weeks 136.7 Behavior patterns at one	orange 634.3	Yosemite national park
year 136.7	Goldsmithing	591. Game birds 598.
Early social behavior 136.7 From creeping to walking	Gold 669.2 Good foods—bread and	Ruffed grouse 598.
612.76	cereals 613.2	Growth
Growth of infant be- havior: early stages 136.7	Good foods—a drink of water 613.2	Learning and growth 136.
Growth of infant be-	Good foods-fruits and vege-	Growth of cities and their problems 71
havior: later stages 136.7 Learning and growth 136.7	tables 613.2 Good foods—milk 637	Growth of infant behavior:
Life begins 136.7	Good foods—milk 637 Good posture wins 613	Growth of infant behavior:
Posture and locomotion 612.76 Study of infant be-	Good turns for our forests 634.92	later stages 136. Gruenberg, Benjamin
havior 136.7	Goodwin, Mrs Maude Wild-	Charles. See Health and
Thirty-six weeks behavior day 136.7	er Dutch and English on the	hygiene series Guatemala
Gessler, E. A.	Hudson. See Peter Stuy-	Behind the cup 665
William Tell 949.4 Getting acquainted with bac-	vesant 973.2	In the path of the gal- leons 917.29
teria 589.95	Goose in water. See Models in motion 741	Guidance in public schools
Geysers Formation of volcanoes	Gophers	Guide meets guide, When 796.
and geysers 551.2	Million-dollar pockets 632.6	Gulf of Mexico
Ground water 551.49 Geysers of the Yellowstone	Gorgon's head 291	National bird refuges 598.
917.87	Government. See subdivision Politics and gov-	Gulls Birds of the seacoast 598.2
Spectre F	ernment under names of	Fleet wings 598.2
Gibraltar	countries, states, etc.	Nomads of the sea 598.2
Mediterranean mecca 914.6 Gift of life 613.9	for the government of an individual country.	Gunning. See Hunting
Gioacchino Rossini 92	state, etc. (e.g. U.S.— Politics and government	Guns. See Firearms Gypsy dancer. See Models
Gipsy and brown-tail moths —control methods 632.7	Government education 970.1	in motion 74
Gipsy and brown-tail moths	Government service and its	Gypsy moth. See Gipsy
—life history 632.7	problems 970.1	moth

Н	Health of children. See Children—Care and hy-	Home nursing—special pro- cedures 649
Habitations, Human. See	giene	Home nursing—the bed
Architecture, Domestic	Health of infants. See Infants—Care and hygiene	Home of the birds 598.2
Habitations of animals. See Animals—Habitations	Health of women. See Wo- man—Health and hy-	Honduras About bananas 634.7
Habits of animals. See Animals—Habits and be-	giene	Honey
havior	Hearing Fundamentals of acous-	Honey bee 595.7 See also Bees
Cleanliness—keeping the	tics 534 How we hear 617.8	Honey bee 595.7
hair clean 613 Red-head 613	Out of the cilende 6179	Honor of the little purple stamp 664.9
Haiti From Haiti to Trinidad 917.29	See also Ear	Hood, Mount Roads to wonderland 917.9
Hale, Edward Everett	Action of the human	Hop growing 633.8
Man without a country F Halifax, Nova Scotia	Circulation 612.1	Hop growing 633.8
City by the sea 917.16 Hall, Frederick G (as actor)	Heart and how it works 612.1	Hornets Adventures of Peter 599
Drypoint /6/	Valves of the heart in action 612.1	Horology. See Clocks and
Ham Meat packing 664.9	See also Blood	watches Horse and man 636.1
Hamilton, Alexander (as subject)	Heart and how it works 612.1	Horse in motion 636.1
Alexander Hamilton, De	Heart of Lincoln 92	
Alexander Hamilton, Yale	Experiments in conduc-	Cow business 636.2 Horse and man 636.1 Horse in motion 636.1 Hot air heating 697 Hothouses. See Greenhouses
univ. 92	Fire and heat 536	Hot air heating 697 Hothouses. See Greenhouses
Cleanliness—clean face	Heat and light from elec-	Hottest flame in the world
Händel, George Friedrich	Heat treatment of steel 669.1	House, Florence (as actor)
(as subject) George Frederick Handel 92	Heating Hot air heating 697	Hidden talisman 709
Hartman, Donald (as ac-	Heidi of the Alps F Hemorrhage	House flies. See Flies House fly. Eastman 595.77
tor) Hidden talisman 709	First aid—control of	House fly. Erpi 595.77 House painting
Harvard university. Arnold arboretum. Atkins in-	bleeding 614.8 Hemp	Home is what you make it 690
stitution, Soledad, Cuba	Philippine Islands 919.14 Henry street settlement,	Household management. See
Harvard university natural	New York	Home economics Housekeeping. See Home
science series Animal life 581	Henry street visiting nurse service 649	economics Houses. See Architecture,
Earth's rocky crust 551	Henry street visiting nurse	Domestic
Plant growth 581	Hens. See Poultry	Houses of the Arctic and the Tropics 728
Plant life Reactions in plants and	Wading birds 598.2	Housing Tale of two rivers 331.8
animals 574 Wearing away of the	Hewlett, Clarence Wilson Radioactive rays 539.7	Housing problem 591.5 How and why of spuds 635.2
land 551.3	Hlawatha. Longfellow, H.	How Brooklyn bridge was
Work of running water 551.48 Harvest of the sugar maple	of Hiawatha F	built 624 How disease is spread 614
tree 664.1 Harvesting machinery	Hidden foes in seed potatoes 635.2	How forests serve 634.9 How he earns a living 970.1
America's granary 633.1 Harvesting the deep 639		How life begins. See Life
Hassam, Childe (as subject)	Highway beautification 625.7	How living things find a
Childe Hassam—artist 92 Hats off 929.9		home on the earth 591.57 How movies move 778
Hawaiian Islands 919.69	Hill, Edwin C. Cougar, the killer 599	How nature protects ani- mals 591.57
Hawks	Hindu holiday 915.4	How plants and animals
Birds of prey. Eastman 598.2 Birds of prey. Films of	Benares 913.4	cause disease 589.95 How seeds germinate 631.5
Commerce 598.2 Our common birds 598.2		How talkles talk 778 How teeth grow 617.6
Sparrow hawk 598.2	Jungle giants 599 Three jungle giants 599 His contribution to mod-	How the mosquito spreads
Hay-infusion, Micro-organ- isms of 589.95	ern civilization 970.1	How to get rid of rats 632.6
Haydn, Franz Joseph Kaiser quartet. See String	Historic scenes along the Mount Vernon memori-	How to grow hogs 636.4 How to prevent disease 614
choir 787	al highway 917.55 History of corn 633.1	How we breathe 612.2 How we hear 617.8
Haymaking 631.5	Hogs. See Swine	How you see 617.7
Haymaking 631.5 Haynes, Manning	Holland and the Dutch 914.92	Howard, Roy Wilson Literary fish story 799.1
William Tell 949.4	Holy Land 915.69 Home demonstration work	How's your eyesight? 617.7
Health, See Hygiene Health, Public. See Public	in the western states 640	Hubay, Jens Hejre Kati. See String
health	what it is and does 640	choir 787 Hughes, Lloyd (as actor)
Health and hygiene series, by B. C. Gruenberg	Home economics Home demonstration work	Lost world
Armies of health and dis- ease 589.95	in the western states 640	Hull design 623.8 Human adventure 571
Disease carriers 614	-what it is and does 640	Human body. See Anatomy
Eyesight 617.7 Food 613.2	Home from the South 598.2	Human voice 612.78
General health habits 613 Posture 613	Home is what you make it 690	Humming-birds Hummingbirds 598.2
Teeth 617.6		In birdland 598.2

Hungary Hungary Hungary Through oil lands of Europe and Africa—Italy, Hungary, the Danube, and Rumania 665.5 Hunting Regulated deer hunting 799.2 With gun and dog 799.2 Hunting ground of Hiawatha tha (Hyatt) (as actor) Sculpture in stone 730 Huntley, John (as actor) Sculpture in stone 730 Huntley, John (as actor) Stephen Foster 92 Hurn, Phillip Courage of Kay 640 Hydra. See Hydrozoa Hydroelectric plants Conowingo 621.312 Electric power in the southern Appalachians 621.312 Hydroelectric power 621.312 Nature's frozen credits Vater power. Bur. of mines 621.312 Hydroelectric power 621.312	India Benares Hindu holiday Hindian corn. See Rubber Indian corn. See Corn Indian hunting grounds. See Indian hunting grounds. See Indian tribal customs And village life Hindians of North America Cheeka, an Indian boy His contribution to modern civilization His contribution civilization	Inland navigation Transportation on the Great Lakes Insectivorous plants Carnivorous plants Plant traps Flant traps Some water insects Insects, Aquatic Pond insects Some water insects Insects, Injurious and beneficial Our animal friends and foes Planting and care of trees 715 Potato enemies 632.7 Insects, Pond Insects, Pond Insects, Pond Insects, Pond Insects, Pond Inspection of the Atlantic coast Inside story of your telephone Inspection of food. See Food adulteration and inspection Inspection of meat. See Meat inspection Intelligence tests. See Mental tests Interdependence Internal combustion engines Internal combustion engines See Gas and oil engines International ice patrol International ice patrol International ice patrol International ice patrol International international international international drawing Invading muskieland Invertebrates Seaside friends and country cousins Ireland Emerald Isle Ramble in Erin Iris (Plant) Iris, lupine, pride of the mountains 581. Se1. Se1. Se1. Se1. Se1. Se1. Se1. Se
Hygiene, Social. See Venereal diseases	Education Government education 970.1	Tiger lily, vesper iris, sprouting bean 583
	Government relations	mountains 583
I	Government service and its problems 970.1	Inside story of your tele- phone 621.385
ice, Geological work of 551.31 ice sports. See Winter sports	Industries How he earns a living 970.1	Pig iron to steel 669.1 Story of iron 669.1
International ice patrol 614.8 Iceland fishermen. Loti, P. See Pecheurs d'Islande F Ichthyology. See Fishes Idaho	Legal status, laws, etc. See Indians of North America — Government relations	Story of steel From mines and mining From ore to pig iron Safety in the use of explosives in open-pit iron mining 622
Civilian conservation corps at work—Montana and	Missions Mission influences 970.1	Story of iron 669.1
Idaho 634.909 Civilian conservation corps	Schools	Iron ores Iron ore to pig iron 669.1
at work — Utah and southern Idaho 634.909	See Indians of North America—Education	Ironwork Making of wrought iron 721.9
Illumination. See Lighting Immigrants. See subdivision Immigration and emi-	Social life and customs Survivals of primitive	Irrigation 626.8
gration under names of countries (e.g. U.S.— Immigration and emi-	home life 970.1 Indians of the painted des- ert 970.1	Irrigation—a brief outline 626.8 Orchard irrigation 626.8 Story of federal reclama-
gration) Immigration 325	Individual differences In arithmetic 511	Story of federal reclama- tion 626.8
Immigration to the United States 325	Induced currents 621.31 Industrial worker 331.8	Irrigation—a brief outline 626.8 Irritability
In birdland 598.2 In hallowed paths 915.69	Industrious diamonds 621.9 Infants	· Reactions in plants and animals 574
In hallowed paths 915.69 In old Granada 914.6	Care and hygiene	Islam in Egypt 290
In old Hessen 914.3	Baby's day at twelve	Island of sugar 664.1 Island of yesterday 919.21
In old Madrid 914.6 In quest of the bronze-back	weeks 136.7 Behavior day at forty-	Isle of Marken 914.92
799.1 In rural Belgium 914.93	eight weeks 136.7 Behavior patterns at one	Isles of romance 917.29 Isles of sunshine 917.29
In the days of chivalry 942.03	year 136.7 Thirty-six weeks behavior	It might have been you 634.92
In the path of the galleons 917.28 Incandescent lamps. See	day 136.7 Injuries. See First ald in illness and injury	Through oil lands of Europe and Africa—Italy,
Electric lamps		
Incas	Injurious insects. See Insects, Injurious and	Hungary, the Danube. and Rumania 665.5

J	Kilauea	Layers or loafers 636.5 Laying the world's fastest
Jack and Jill in Songland 784	Hawaiian islands 919.69 Kilauea—the house of	ocean capie on New-
Jack wins his wings 629.1	everlasting fire 551.2 Kilauea volcano, Hawaii	foundland 621.38
From the Bahamas to Ja-	551.2 Kilauea—the house of ever-	Lead 669.4 Story of lead mining and
maica. Church 917.29 From the Bahamas to	lasting fire 551.2	milling 669.4
Jamaica, Eastman 917.29 Jamestown 973.1	Kilauea volcano, Hawaii 551.2 Killers 595.7	Story of lead smelting 669.4 Leaping a crevasse. See
Japan	Dynamic learning 370.1	Models in motion 741 Learn and live 614.8
Four seasons in Japan 915.2 Japan and her problems 915.2	Kindness to animals. See Animals—Treatment	Learning and growth 136.7 Learning to live 170
Japanese cabaret 793.3 Nikko 915.2	King, Jean Paul	Leather 675
Romantic story of silk 677.4	Sponge industry 593.4 King of kings 232 King of the rails 385	Story of leather 675
Social life and customs	King of the rails 385 Kingfishers	Leaves from a ranger's note
Japan and her problems 915.2	In birdland 598.2	book 917.123 Leeuwenhoek, Anthony van
Japanese beetle—life his-	military college	(as subject)
tory, damage, and spread 632.7	Gentlemen cadets 355 Kipling's Mandalay 915.4	Lemon, Harvey Brace
Japanese beetle—methods of control 632.7	Kitchen gardens. See Vege- table gardening	Electromagnetic induction 538 Electromagnetism 538
Japanese beetles	Kitchens	Electrostatics 537 Energy and its transfor-
Beware the Japanese 632.7	Kitson, Harry Dexter	mations 530 Fundamentals of acoustics 534
Japanese beetle—life history, damage, and	Choosing your vocation 371.42 Kitten and duck playing.	High frequency currents 537
spread 632.7 Japanese beetle—methods	See Models in motion 741 Knowing gnome 613	Magnetism 538 Molecular theory of mat-
of control 632.7	Koch, Robert (as subject)	ter 539 Oxidation and reduction 540
Japanese cabaret 793.3 Japanese table manners 395	Kodaks. See Cameras	Sound waves and their
Jasper park, Alberta Big game trails 591.9	Kwang Chow Fu 915.1	Lenses
Daughter of the glaciers 917.123	L	Eyes of science 535.8 Eyesight 617.7
Leaves from a ranger's		Lenses 535.8 Optical instruments 535.8
note book Robson trail 917.123	Labor and laboring classes Industrial worker 331.8	Leopards
Top o' the world 917.123 Valley of a hundred peaks	Dwellings	Cat animals 599
Where beauty dwells 917.123 917.123	See Housing	Let's see Yosemite 917.94 Lewis and Clark expedition
Java	laboring classes	Louisiana purchase and Lewis and Clark expedi-
Bit of life in Java 919.22	Lady of the lake F Lake of bays, Ontario	tion 973.4 Life 581
Dutch East Indies 919.2 Java—the fragrant isle 919.22	Region of romance 917.13	Life begins 136.7
Java—the fragrant isle 919.22 Jefferson, Thomas (as sub-	Lamb and mutton for	Life cycle of the ant-lion 595.7 Life-history of the monarch
ject) Thomas Jefferson 92	home use 664.9 Lamb and mutton for home	butterfly 595.78 Life history of the pearl 594
Jellyfish. See Medusae	Land, Reclamation of. See	Life history of the yellow fever mosquito 595.771
Bre'r Rabbit and his pals 599	Reclamation of land Land clearing. See Clearing	Life in an Indian village.
Jesus Christ Christ confounds his	of land	See Indian tribal customs and village life 970.1
critics 232 King of kings 232	Land of cotton 677.2 Land of Evangeline 917.16	Life in the hedgerows 591.5 Life in the Sahara 916.6
Jewels of industry 621.9	Land of the white cedar 674 Land transportation 380	Life in the South seas 919.61 Life of a healthy child 649
Johann Strauss 92 Johannes Brahms 92	Landscape gardening Home is what you make	Life of Thomas A. Edison 92
Johnston, Mary Pioneers of the old South.	it 690	Every swimmer a life-
See Jamestown 973.1	School beautiful 727 Lane, Katherine Ward (as	saver 614.8 First aid—life saving and
Journalist 070	From clay to bronze 739	resuscitation 614.8 Learn and live 614.8
See also Newspapers	Lang, P. William Tell 949.4	Safety at sea 614.8 Lifts. See Elevators
Journalist 070 Jungle giants 599	Langmuir, Irving	Light
	Hottest flame in the world 671W	Light of a race 628.9
K	Thomas A. Edison 92 Lapland	Lighting Illumination 621.32
Kashmir	Children of Scandinavia 914.8 Lapwings. See Plovers	Light of a race 628.9
Kashmir, old and new 915.4	Lantern projection Optical instruments 535.8	Germinating, and black- berry llly 583
Kashmir, old and new 915.4 Keeping out bad food 614	Last of the wood engravers 761 Lathes	Orchids, lilles, irls, pas-
Kennedy, Charles Rann (as	Engine lathe and its op-	sion flower, chrysanthe- mums, rose, lotus and
Gorgon's head 291	eration 621.9 Laurentian lures 917.14	cotton growing or open- ing and seed germinat-
Kentucky	Laurentian mountains Laurentian lures 917.14	ing 583 Seed, and Chinese lily 583
Boone trail 917.5 Kerosene. See Petroleum	Literary fish story 799.1 Lawn tennis. See Tennis	Tiger lily, vesper iris,
Kicking horse trail . 917.123	Layers and liars. See Lay-	sprouting bean 583 Limestone
Kid comes through 613	ers or loafers 636.5	Limestone and marble 553.5

Limestone and marble 553.5 Limnology. See Fresh-water	Lumbering in British Co-	Malay states
fauna	lumbia 674 Lumbering in the Pacific	Rubbering in Selangor 67 Tin 669.
Lincoln, Abraham (as sub-	Northwest 674	Malays. See Malay race
Abraham Lincoln, DeVry 92	Lunch rooms. See Restaurants, lunch rooms,	Malays of Sumatra 919.2 Maligne lake, Alberta
Abraham Lincoln. East- man 92	etc.	Daughter of the glaciers
Heart of Lincoln 92	Lungs Circulation 612.1	Where beauty dwells 917.12
From flax to linen 677.1	How we breathe 612.2	Mallard duck in Oregon 598.
See also Flax	Lupine Iris, lupine, pride of the	Malnutrition. See Nutrition Man
Lions	_ mountains 583	
Animals of the cat tribe 599 Cat animals 599	Lupins 580 Lupins 580	Influence of environment People who live at the
Jungle giants 599	Luther, Martin (as subject)	equator 573.
Liquid air 533	Martin Luther—his life and times 92	People who live by the sea 573.
Liquid fuel. See Gasoline Lister, Joseph Lister (as	Luther Burbank 92	People who live in a
Lister, Joseph Lister (as subject)		crowded valley 573. People who live in the
Man against microhe 500 05	M	Arctic 573.
Liszt, Franz (as subject) Franz Liszt 92	McCord, Nancy (actor)	People who live in the desert 573.
Literary fish story 799.1	McCord, Nancy (actor) Stephen Foster 92 McDowell, John Chambers When the cows come home 636.2	People who live in the
Little Dutch tulip girl 914.92 Little Indian weaver 970.1	When the cows come	mountains 573.4 People who live on a
Living cell 593	home 636.2	great plain 573. People who live through
Livingstone, David (as sub- ject)	Machinery Simple machines 621	industry 573.4
David Livingstone 92	Machinery in industry	Man 612
Our four-footed helpers 599	Behind the scenes in the machine age 331.4	Man against microbe 589.99 Man shoveling corn. See
Lobsters	MacKenzie, Donald	Models in motion 74
Inshore fishing on the Atlantic coast 639	Fundamentals of acoustics 534	Man without a country Mandalay, Kipling's 915.4
Locomotives	Sound waves and their	Mandalay, Kipling's 915.2 Mandalay as Kipling saw it. See Kipling's Mandalay
King of the rails 385 Steam power 621.1 Story of power 621	sources 534 Mackenzie river	915.4
Story of power 621	Down North 917.12 Mackerel	Manners. See Etiquet Manning, Ellis
Transportation. Bur. of 385	New England fisheries—	Liquid air 533
Transportation. DeVry 380 Locusts	mackerel 639	Manufacture of Anaconda sheet copper 669.3
Grasshopper 595.7	Macy, R. H. & company, New York	Manufacture of nine. See
Logging. See Lumbering	Parade of comic balloons 629.1 Madeira	Story of steel, reel 5 669.1 Manufacture of rails,
From London to Paris by	Mediterranean mecca 914.6	plates, and other hot
air 914 London 914.21	Madrid 914.6	rolled products. See Story of steel, reel 3 669.1
Long, Ray	Magdeburg experiments	Manutacture of sheet steel
Literary fish story 799.1 Long drawn out 669.3	Atmospheric pressure 533 Magellan of the air 629.1	and tin plate. See Story of steel, reel 6 669.1 Manufacture of wire prod- ucts. See Story of steel,
Longrellow, Henry Wads-	Magic	Manufacture of wire prod-
worth Hiawatha. See Hunting	Magic versus science 793.8 Magic in it 631	reel 4 669.1
ground of Hiawatha	Magic Minas 917.16	Manufactured abrasives 621.9
Looking back through the ages 571	Magic of communication 621.385 Magic of the mountains 663	lamps. See Mazda lamp
Looking forward 970.1	Magic versus science 793.8	manufacturing 621.32 Maple sugar
Looking glasses. See Mirrors Loons	Magic Yellowstone 917.87 Magnet winding. See Elec-	Harvest of the sugar
Birds rare and fantastic 598.2 Lorado Taft—sculptor 92	tromagnets Magnetic effects of elec-	maple tree 664.1 Maple syrup and sugar 664.1
Lost World	tricity 538	Vermont's maple industry
Lot in Sodom F Loti, Pierre	Magnetism Early experiments of Mi-	Maple syrup 664.1
Iceland fishermen. See	chael Faraday 538	Maple syrup and sugar 664.1
Pecheurs d'islande F	Magnetic effects of elec- tricity 538	Maple syrup and sugar 664.1 Marauders of the sea 593.9
Lewis and Clark ex-	Magnetism 538	Marble Limestone and marble 553.5
pedition 973.4	Story of the magnet 538 Mahogany	Mardi gras, New Orleans
Love, Bessie (as actor) Lost world	Central America 917.28	New Orleans 917.63 Marine fauna
Lubrication and lubricants	Maintaining the salmon sup-	Reach and sea animals 591.92
Automobile lubrication 629.2 Story of lubricating oil 665.5	Malze. See Corn Making a book 655	Some seashore animals 591.92 Tiny water animals 591.92
Ludwig van Beethoven 92	Making an all-steel automo-	Under-sea life 591.92
Lumbering	bile body 629.2	Maritime provinces 917.1 Marken, Isle of 914.92
Conquest of the forest 674 Drive is on 674	Making money 332.4	Market gardening 635
Far western cedar trails 674	Making of a bronze statue 739 Making of a stained-glass	Marketing live poultry 631.18 Marketing of farm produce. See Farm produce—
Felling forest giants 674 From tree to newspaper 676	window 748	See Farm produce— Marketing
Land of the white cedar 674	Making of wrought iron 721.9	Marmots. See Woodchucks
Lumbering in British Co- lumbia 674	Making pork pies 641.5	Marr, Hans (as actor) William Tell 949.4
Lumbering in the Pacific	Making rabbit pies 641.5	Marriage customs and rites
Northwest 674 Modern industrial meth-	Malarial fever Stung! by Amos Quito 595.771	Peasant wedding in Hesse 392
ods 687	Malay race	Martha. Flotow. F., frieherr von. See Milady's esca-
Pillars of the sky 674	Malays of Sumatra 919.21	nade

Martin Luther—his life and	Micro-organisms	Molds and yeast 589.2
times 92	Man 612	Molecular theory
Maryland Chasenesis have	Micro-organisms of hay- infusion 589.95	Molecular theory of mat- ter 539
Chesapeake bay 917.52 Masai 916.7	Microscopic animal life 593	Molecular theory of matter 539
Masked raider. See Great	Micro-organisms of hay-in-	Molecules
raccoon hunt F	fusion 589.95	Beyond the microscope 540 Moles (Animals)
Mass	Microbes. See Bacteriology; Micro-organisms	Adventures of Peter 599
Sacrifice of the mass 264 Master farmer 630	Microscope and microscopy	Molluscs 594
Mastication	Eyes of science 535.8	Mollusks
Physiology of mastication	Optical instruments 535.8	Beach and sea animals 591.92 Molluscs 594
Matches 612.3	Microscopic animal life 593 Microscopic organisms. See	Molluses Monarch butterfly, Life-
Fire making 500	Micro-organisms	history of the 595.78
Mathematical drawing, See	Microscopic view of blood	Monarchs of the plains 591.9
Mechanical drawing	circulation 612.1 'Mid sunshine and sea	Monel metal Story of monel metal 669.7
Matthison, Edith Wynne Gorgon's head 291	'Mid sunshine and sea breezes 917.16	Mongolia Money Metal 005.7
May-files	Middle ages	Mongols of Central Asia
Pond insects 501 02	Robin Hood, junior F	Mongola of Control Asia 915.17
Mazda lamp manufacturing	Middle Atlantic states 917.4 Milady's escapade F	Mongols of Central Asia 915.17 Monkeys
Mazda lamps preferred 621.32 621.32	Milk	Monkeys and apes 599
Meany, Helen (as subject)	Along the milky way 637	
Crystal champions 797.2	Food 613.2	Montana Civilian congenyation compa
Mearns, Hughes	Good foods—milk 637 Milk as food 637	Civilian conservation corps at work—Montana and
Creative approach to edu- cation 370.1	Milk for you and me 637	Idano 634.909
Meat industry and trade	Milky way 637	Montreal, Canada
Meat packing 664 0	Quality milk 637	Canada's metropolis 917.14
Meat inspection Honor of the little purple	Wisconsin dairies 637 Milk as food 637	Motion picture journey to
Statily 664 0	Milk for you and me 637	the moon 520
Meat packing 664 0	Milking machines	Sky 520
Wechanical drawing	Better way of milking 637	Tides and the moon 520 Moore, Clement Clarke
Introduction to mechanical drawing 744	Milky way 637 Milling (Flour). See Flour	Twas the night before
Mechanics	Milling (Flour). See Flour and flour mills	Christmas
Simple machines 621	Million-dollar pockets 632.6	Moose
Mechanics (Persons) Skilled mechanic 621	Mimicry (Biology) Animal camouflage 691.57	Canoe trails through
Mechanics of the nation's	How living things find a	mooseland 591.9 Some larger mammals 591.9
Mechanics of the nation's market place 332.6	How living things find a home on the earth 591.57	Where the moose runs
Medal maker 737	Mine rescue work	loose 599
Medal maker 737	Oxygen breathing apparatus 614.8	Morocco
Medical examinations. See	Mineral oil. See Petroleum	Found in Morocco 916.4
Diagnosis	Mining, Electric. See Elec-	Through oil lands of Eu- rope and Africa—Ger-
Medical profession. See	tricity in mining	many, France, Spain,
Physicians Medicine	Mining and smelting of cop- per 669.3	Morocco, and Algeria 665.5
History	Mints	Mosquito-public enemy 595.771
Man	Canada	Mosquitoes
Medicine, Preventive. See	Making money 332.4	Civilian conservation corps
Public health	Miracle of corn. See History	at work—mosquito con- trol 634,909
Medieval art. See Art,	of corn 633.1	How the mosquito spreads
Mediterranean mecca 914.6	Mirrors Optical instruments 535.8 Mission influences 970.1	disease 595.771
Wiediterranean sea	Mission influences 970.1	Life history of the yellow fever mosquito 595.771
People who live by the	Missions	Mosquito 595.771
Medusae 573.4	Padre Sahib 266	Mosquito—public enemy
Marauders of the goo Foo o	Missions, Indian. See Indians of North America	595.771 Mosquitoes 595.771
Weister, Morris, See General	-Missions	Mosquitoes 595.771 Singing and stinging 595.771
science series	Mixed bathing 591.5	Singing and stinging 595.771 Stung! by Amos Quito 595.771
Men who build the roads 625.7 Mendelssohn-Bartholdy, Fe-	Mobile New South 917.5	Mother Goose rhymes F
IIA (as subject)	Modeling 917.5	Moths
Felix Mendelssohn	From clay to bronze 739	Butterflies and moths 595.78
Mending. See Repairing Men's clothing industry Mental tests 687	Models in motion 741	Moths 595.78 Nature's handiwork 595.7
Merital tests	Modern basketball funda- mentals 796.32	Samia cecropla, the giant
Few tests of child intelli-	Modern coal mining 622.33	American silkworm 595.78
Mesa Verde national park	Modern commerce 380	Why moths leave home 632.7
Looking back through the	Modern football fundamen- tals 796.33	See also Brown-tail moth; Gipsy moth
ages E71	Modern Hercules 662.2	Motion picture journey to
Visit to Mesa Verde na-	Modern industrial methods 687	the moon 520
Metals of a motor car 629.2	Modern quarry blasting 622.2	Motion pictures. See Mov-
Mexico 629.2	Modern trend in turbine de- sign 621.1	ing pictures
Mexico 917.2	Mohammedanism	Motor boat ramble 797.1
Rio Grande 917.8 Through the oil fields of	Islam in Egypt 290	Motor boats
MEXICO 665 5		Motor boat ramble 797.1
BAIL 0.001.5	Mohawk valley 917.47	
Miami Nami	Mold (Botany). See Molds	Motor cars. See Automo-
New South 917.5	Mold (Botany). See Molds (Botany)	Motor cars. See Automo- biles
New South 917.5	Mold (Botany). See Molds (Botany) Molds (Botany)	Motor cars. See Automo- biles Motoring in cloudland 917.123
New South 917.5 Mica Inside story of your telephone 621 325	Mold (Botany). See Molds (Botany) Molds (Botany) Fungus plants 589.2	Motor cars. See Automobiles Motoring in cloudland 917.123 Mould (Botany). See Molds
New South 917.5 Mica Inside story of your tele-	Mold (Botany). See Molds (Botany) Molds (Botany)	Motor cars. See Automo- biles Motoring in cloudland 917.123

Maturalin Dullding 54.44 Mountain climbing 54.44 Mount	Mount Vernon, Virginia	Nation's market place 332.6	Twenty-four dollar island
Mountain climbing. Mountaineering Mountainee	Historic scenes along the	Naturalized plant immi-	
Mountain linding Mountain linding Mountain linding Mountain linding Mountain linding Series among snow; Top. 5 the world of 255 Mountaineering memories Top. 5 the world of 255 Mountaineering memories Top. 5 the world of 255 Mountaineering memories Mountain linding Mountaineering memories Top. 5 the world of 255 Mountaineering memories Top. 5 the world of 255 Mountaineering memories Mountaine linding Mount	Mount Vernon memorial		hridge New York:
Mountain claiming See Dilt of high life 971.23 Camp fires among snow 765.5 Dilt of high life 971.23 Camp fires among snow 771.14 Mountainering memories 776.5 Mountainering memories 776.5 Mountainering memories 776.5 Mountain building 551.4 Mountain building 651.4 Mountain buildin	Mountain building 551.4	Four seasons 570	George Washington
Mountain lions. See Pumas Mountaine spin snows 78.5 Bit of high life 917.125 Camp fires among smore of 87.74 Bountaine world 917.125 Top of the world 917.125 Top of the world 917.125 Mountain building 551.4 Mountain building 561.4 Mountain bu	Mountain climbing. See	Clyde Fisher	bridge, New York
Mountaineering amows 766.5 bilt of high life 917.123 camp fires among snow 917.123 camp fires am	Mountain lions. See Pumas	Ants 595.796	
Day at the river 2017 Camp fires among smory 11 Mountaineering memories 796.5 Pruits and flowers Form of the world 970.2 Mountaineering memories 796.5 Mountaine 1970.2 Mountaineering memories 796.5 Moving pictures 110 bridland 1970. Moving pictures 1970. Moving pic	Mountaineering	COE 70	New York water supply 628.1
Top o' the world 917,122 Mountainering memories 796.5 Muricia pitting vitters 796.7 Municia linering vitters 797.7 Municia interventing memories 797.7 Municia interventing 797.7 Musicia interventing 79	Rit of high life 917.123	Day at the river 597	Manhattan building
Top o' the world 917,122 Mountainering memories 796.5 Muricia pitting vitters 796.7 Municia linering vitters 797.7 Municia interventing memories 797.7 Municia interventing 797.7 Musicia interventing 79	Camp fires among snow	Down at our pond 597.8	Fabrication and erection
Top o' the world 917,122 Mountainering memories 796.5 Muricia pitting vitters 796.7 Municia linering vitters 797.7 Municia interventing memories 797.7 Municia interventing 797.7 Musicia interventing 79	peaks 917.11	Fruits and flowers 635	
Mountain metring memories 795.5 Mountain shoulding Mountain building Mouse, Sectures How movies move from the move of the Mountain building Mountain building Mountain building State Mouse, Sectures How movies move from the move of the Moving pictures, Talking Grant Moving Moving pictures, Talking Grant Moving Moving pictures, Talking Grant Moving Grant	790.5		New York (city). Empire
Mouncain building Mouse, See Mice Mow movies move Moving pictures, Talking Family album Framely albu		Growing things find a	
Mouncain building Mouse, See Mice Mow movies move Moving pictures, Talking Family album Framely albu		home on the earth 575.4	New York (city). Metropol-
How movies move How movies move How movies move Moving pictures, Talking Family Allous and the Service of the S	Mountain building 551.4	In Dirdiand	itan museum of art
Firstes of the sky 998-2 Moving pictures, Talking 621.33 Frinding his voice 178 How talkies talk 778 Out where the sound begins improvements. The properting for a garden, 625 How talkies talk 778 Out where the sound begins improvements. The properting for a garden, 625 How talkies talk 778 Out where the sound begins improvements. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for a garden, 625 Morado of the sea of 1882. The properting for 1891. The properting for a garden, 625 Morado of the sea of 1892. The properting for 1891. The prope		Pots 636	
Family album ce 27.38 Finding his value with a sub of the sund begins and the sulf country cousins 58. See Gitles and towns— See Cities and towns— See Cities—		Pirates of the sky 598.2	New York (city). Metropoli-
Spectres with the state of the search of the	Moving pictures, Talking 621.38	preparing for a garden, pts 1 and 2 635	
How talkies talk Name of the search of the	Finding his voice	Seaside friends and their	American wing 749
Nature's frozen credits of 621.312 Nature's rozen credits of 621.312 Nature's gliders of control of art. Cloisters of Nature's frozen credits of 621.312 Nature's gliders	How talkies talk 1/0	Slery 520	
Muscles of the seacoast 58.2 Nomads in our national parks, e.g. Gla-rotter the moore runsing the seacoast 58.2 Now South	gins	Nature's armour 591.57	tan museum of art.
Civic improvement Muncipalities. See Cities and towns Murres Murres Murres Komads of the seacoast Komads of the sacoast Komads of the sacoast Komads of the seacoast Komads of the sacoast Koma	Municipal improvements.	Nature's irozen credits 621.312	Cloisters
Muricipalities. See Cities and towns Murres Murres Eirds of the seacoast 598.2 Nomads of the ocan 598.2 Nomads of the seacoast 598.2 Nomads of the sea 598.2 Nomads of the sea 598.2 Nuscles Muscles Muscles Muscles Muscles Muscles Muscles Stingus plants Series Stingus plants Series Japanese cabaret Musclann Songland 749 Musclann Songland 784 Musclann Songland 784 Musclanns See names of individual musiclans Muskellungs Battling mukleland 799.1 Invading mukleland 799.1 Invading mukleland 799.1 Invading mukleland 799.1 Muskellungs Battling with mukles 799.1 Invading mukleland 799.1 Muskels, Battling with 799.1 Muskers Firearms of our forefathers Firearms of our forefathe	Civic improvement	Nature's handiwork 595.7	New York (city). Stock ex-
Ariel Southwest 917.91 Normads of the seacoast 598.2 Normads of the seacoast 598.2 Normads of the sea 598.2 Muscles Muscle	Municipalities. See Cities	Nature's nurseries 591.5	change
Nomads of the seacoast 598.2 Nomads of the sea 598.2 Nowacles 611 Misseles 61 Miss	and towns	Arid Southwest 917.91	
Nomads of the ocean Nomads of the sea 598.2 Muscles Nomads of the sea 598.2 Muscles Muscles of modern art film Muscles of modern art film Series Mushrooms Fungus plants (usen of the waves Safety at sea 618.2 Musical instruments, Japanesse cabaret 793.3 Muscle instruments, Japanesse Cab	Dirds of the seacoast 598.2	Indians of the painted	
Muscles Muscurn of modern art film series Muscurn of modern art film series Safety at sea. 614.8 Safety at sea. 61	Nomads of the ocean 598.2		New York (state)
National parks and neseries with musiclasms from the part of the United States Gase, Mysomycetes or sleep Mysteries of snow Mysteries of snow Mythology, Classical Mysomycetes or sleep Nanook, the Eskimo Phonock, the Eskimo Phonock of the Eskimo Nanook the Eskimo Phonock of the Eskimo Phonock of the Eskimo Phonock the Eskimo Phonock the Eskimo Phonock of the Phonock o	Muscles		Middle Atlantic states 917.4 Mohawk valley 917.47
National parks and neseries with musiclasms from the part of the United States Gase, Mysomycetes or sleep Mysteries of snow Mysteries of snow Mythology, Classical Mysomycetes or sleep Nanook, the Eskimo Phonock, the Eskimo Phonock of the Eskimo Nanook the Eskimo Phonock of the Eskimo Phonock of the Eskimo Phonock the Eskimo Phonock the Eskimo Phonock of the Phonock o	Muscles 611	Queen of the waves 38/	
Aeronautics Fungus plants Fungus plants Fungus plants Fungus plants Ringus plants Fungus plants Ringus Ringus plants Ringus Ringus plants Ringus Ring		Navigation, Aerial. See	mountains; Niagara
Musicial Instruments, Japanese cabaret 793.3 Musical notation Jack and Jill in Songland 784 Musicians. See names of in dividual musicians with muskies 799.1 Invading muskieland 799.1 Tigers of the North 791.1 Musketeers Firearms of our forfathers with muskies 799.1 Musketeers Firearms of our forfathers Muskies, Battling with 799.1 Musketeers Firearms of our forfathers Muskies, Battling with 799.1 Musketeers Firearms of our forfathers Muskies, Battling with 799.1 Muskrats Muskies, Battling with 799.1 Muskrats Muskies, Battling with 799.1 Muskrats of the United States Muskies, Battling with 799.1 Muskrats and mutton for home use 664.9 Mysteries of snow 51.5 Mythology, Classical Gorgon's head and mutton for home use 664.9 Myxomycetes or slime molds 589.2 Mink on the builds an isloo. See Nanook builds an isloo. See Nanook of the North 919.8 Nanook the bunter. See Nanook the bunter. See Nanook the bunter seer Nanook the festimo 919.8 Nanook the Eskimo 919.8 Nanook of the North 919.8 Nanook of the Seximo 919.8 Nanook of the North 919.8 Nanook of the Seximo 919.8 Nanook of the North 919.8 Nanook of t	Mushrooms	Aeronautics	falis
Neath Poland's harvest stated by the skies Japanese cabaret 793.3 Musical notation Jack and Jill in Songland 784 Musicians. See mames of individual musicians Muskellungs Muskellungs Muskellungs Muskellungs Muskellungs Muskellungs Musketeers of the North 799.1 Invading muskelland 779.1 Musketeers of the North 799.1 Musketeers of the Statist Musketeers of the United States 636.9 Mustrats Fur industry of the United States 636.9 Mustron Lamb and mutton for home use 664.9 Mysteries of snow 591.5 Mythology, Classical Gorgori's head Gorgori's head Gorgori's head Gorgori's head Myxomycetes or slime molds S89.2 Manook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook of the North 919.8 Naroises National bird refuges 589.2 National parks 917.8 See also Forest reserves; Nationa		land navigation	
Necromancy. See Magic	nese	'Neath Poland's harvest	
Musicians. See names of individual musicians Muskellungs Battling with muskies 799.1 Invading muskieland 799.1 Musketers Firearms of our forefathers Muskies, Battling with 799.1 Muskries, Earling with 799.1 Muskries fur industry of the United States 636.9 Mutton Lamb and mutton for home use 664.9 Mysteries of snow Mysteries of snow Mythology, Classical Gorgon's head Gorgon's head Gorgon's head Romook, the Eskimo 919.8 Nanook and his family. See Nanook, the Eskimo 919.8 Nanook the Eskimo 919.8 Nanook of the North 919.8 Nanook of the North 919.8 Nanook of the North 919.8 Nanook the Eskimo 919.8 Nanook of the North 919.8 Nanook the Eskimo 919.8 Nanook the Eskimo 919.8 Nanook of the North 919.8 Nanook of the North 919.8 Nanook of the North 919.8 Nanook of the Spatino 919.8 National parks and reserves Roads in our national parks 917.8	oupanose care	Necromancy, See Magic	New York impressions 91/.4/1
Muskellungs Battling with muskles 799.1 Invading muskleland 799.1 Tigers of the North 799.1 Musketeers Firearms of our fore- fathers Muskles, Battling with 799.1 Muskrats Fur industry of the United States Mythology, Classical Gorgon's head 291 Myxomycetes or slime molds Myxomycetes or slime molds Myxomycetes or slime molds N N Nanook and his family. See Nanook, the Eskimo 919.8 Nanook of the North 910.8	Jack and Jill in Songland 784	Negro artists at work	New Zealand
Muskellungs Battling with muskles 799.1 Invading muskleland 799.1 Musketers Firearms of our fore- fathers of the North Muskreters Firearms of our fore- fathers of the States Muskels, Battling with 799.1 Muskrats Fur industry of the United States 636.9 Mutton Lamb and mutton for home use 664.9 Mysteries of snow Mythology, Classical Gorgon's head Myxomycetes or slime molds See also Amsterdam Nettles Butterflies and nettles 595.78 Mythology, Classical Gorgon's head Myxomycetes or slime molds See also Amsterdam Nettles Butterflies and nettles 595.78 New Brunswick Fish and bear tale Maritime provinces 917.15 Mythology, Classical Gorgon's head Myxomycetes or slime molds See also Amsterdam Nettles Butterflies and nettles 595.78 New England America's heritage 391.49 New England America's heritage 369.43 New England fisheries— Nanook, the Eskimo 919.8 Nanook of the North Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the Eskimo 919.8 Nanook the keskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the Eskimo 919.8 Narcissus Paper white narcisus 583 National bird refuges 598.2 National bird refuges 598.2 National borders. See Forest reserves National parks and reserves Roads in our national parks Roads in our national parks New Orleans New Orlea	Musicians. See names of in-	Negroes	Glimpse of New Zealand
Battling with muskles 799.1 Invading muskleland 799.1 Tigers of the North 799.1 Muskerers Firearms of our fore- fathers Firearms of our folland 914,92 Holland and the Dutch 1914,92 See also Amsterdam Nettles Butterflies and nettles 595.78 New England bear tale Maritime provinces 1917.45 New England states 1917.45 New England states 1917.45 New England fisheries— mackerel Newspaper of 70 Niagara falls Story of Niagara Winter witchery of Ni- agara Nickel Inside story of your tele- phone Story of nickel Norrick Inside story of your tele- Newspapers Study of Niagara Nickel Inside story of your tele- Newspaper of 100 Newsp	Muskellungs	110810 01111111	
Muskies, Battling with 799.1 Muskrats Fur industry of the United States 636.9 Mutton Lamb and mutton for home use 664.9 Mysteries of snow 551.5 Mythology, Classical Gorgon's head 291 Myxomycetes or slime molds 589.2 Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook the Hunter. See Nanook, the Eskimo 919.8 Nanook the Munter See Nanook, the Eskimo 919.8 Nanook the Munter. See Nanook the Mun	Battling with muskies 799.1		Newspaper work. See Jour-
Musketeers Firearms of our fore- fathers Muskies, Battling with 799.1 Muskrats Fur industry of the United States 636.9 Mutton Lamb and mutton for home use 664.9 Mysteries of snow Mysteries of snow Mythology, Classical Gorgon's head Myxomycetes or slime molds S89.2 Nanook and his family. See Nanook the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook the Munter. See Nanook the Munter. See Nanook the Institute Dutch tulip girl 914.92 Mysteries of snow Mythology, Classical Gorgon's head Myxomycetes or slime molds S89.2 New England bart tale New England America's heritage New England states Pilgrims Profit refe to newspaper Newspaper in the making 070 Negagara falls Jewels of industry Study of Niagara 917.4 Nikel Inside story of your tele- phone Story of nickel Story of nickel Night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. See 'Twas the night before Christ- Moore, C. See 'Twas the night before Christ- Moore, C. C. See 'Twas the night before Christ- Moore, C. See 'Twas the night	Invading muskleland 799.1	Netherlands 700 014 02	
fathers followed and fathers for lunted States for lunter witchery for lunted States for lunted States for lunter witchery for	Mucketeers	Children of Holland 914.92	From tree to newspaper 676
Muskies, Battling with 799.1 Muskrats Fur industry of the United States 636.9 Mutton Lamb and mutton for home use 664.9 Mysteries of snow 551.5 Mythology, Classical Gorgon's head 291 Myxomycetes or slime molds Fish and bear tale 799.1 Maritime provinces 917.1 Salmon angling on the Restigouche 917.15 Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook of the North 919.8 Nanook, the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the farming for the Rose Indianal parks and reserves Roads in our national parks 917.8 See also Forest reserves: Roads in our national parks 917.8 See also Forest reserves; also names of national parks, e.g. Gla-	Firearms of our fore-	Going to Volendam 914.92	
Muskrats Fur industry of the United States 636.9 Mutton Lamb and mutton for home use 664.9 Mysteries of snow Mysteries and nettles 595.78 New Brunswick Tisk and bear tale 799.1 Maritime provinces 917.15 Salmon angling on the Restigouch 917.15 Where the moose runs loose 917.15 New England states 917.4 New England fisheries—cod 639 New England fisheries—cod 639 New Orleans 1916.69.7 Noredlingen—annum 1634 Apple-blossom time in Normand		Holland and the Dutch 914.92	Jewels of industry 621.9
United States 636.9 Mutton Lamb and mutton for home use 664.9 Mysteries of snow 551.5 Mythology, Classical Gorgon's head Myxomycetes or slime molds 589.2 Nanook and his family. See Nanook, the Eskimo 919.8 Nanook of the North Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the bunter. See National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks and reserves Roads in our national parks and parks e.g. Gla- **New Orleans New O	Muskrats		Study of Niagara 917.47
New Brunswick Fish and bear tale 799.1 Mythology, Classical Gorgon's head Myxomycetes or slime molds N N Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook of the North 919.8 Nanook of the North 919.8 Nanook, the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the Eskimo 919.8 Narcissus Paper white narcissus 583 National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks and reserves Roads in our national parks See also Forest reserves: also names of national parks, e.g. Gla- New York (city) New Porleans New York (city) New York (city) New York (city) New North North America, French explorations in North Meet territorles, Canada Down North North America, Story of vick (city) Night before Christmas. Moore, C. C. See 'Twas North America is the night before Christmas. Nover, C. C. See 'Twas North America, Sher the moose runs North America, Sher the moose runs North Lanour development and tale is phone feat ale phone feat ale phone Story of nickel North Canada North America, Story of voick forms North America, Story of pick of the coral story of post of p	United States 636.9	See also Amsterdam	agara 917.47
home use 664.9 Mysteries of snow 551.5 Mythology, Classical Gorgon's head Myxomycetes or slime molds N N Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Narcissus Paper white narcisus 583 National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks See also Forest reserves Roads in our national parks See also Forest reserves; also names of national parks, e.g. Gla-	Mutton	Nettles	
Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook the hunter. See Nanook of the North 919.8 New England fisheries—cod 639 New England fisheries—fis	home use 664.9		phone 621.385
Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook the hunter. See Nanook of the North 919.8 New England fisheries—cod 639 New England fisheries—fis	Mysteries of snow 551.5	Fish and bear tale 799.1	Stowr of might 669.7
Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook the hunter. See Nanook of the North 919.8 New England fisheries—cod 639 New England fisheries—fis	Mythology, Classical	Maritime provinces 917.1	Moore, C. C. See 'Twas
Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Narcissus Paper white narcissus 533 National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks See also Forest reserves Roads in our national parks See also Forest reserves; also names of national parks, e.g. Gla- New York (city) Where the moose runs 599 Nikko Nimrods in duckland Nine glories of Paris Ningon trails Noerdlingen—annum 1634 Nonads of the ocean posses. 198.2 Norelius, Martha (as sub- Normandy Normandy Normandy North America, French explorations in North Carolina Regulated deer hunting posses. Northwest, Oid Vincennes Northwest, Oid Vincennes Northwest territories, Can- ada New York (city) 1915.2 194.26 194.26 194.26 194.26 194.27 194.27 194.27 194.27 194.28 194.28 194.28 194.28 194.29 1	Myxomycetes or slime molds	Restigouche 917.15	the night before Christ-
Nanook and his family. See Nanook the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook the Silver of the ocean 598.2 National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks and reserves Roads in our national parks 917.8 See also Forest reserves (also names of national parks, e.g. Gla- New York (city) Nimrods in duckland Nine glories of Paris (Niplgon trails (Nonads of the ocean 598.2 Norellus, Martha (as sub- Normandy Normandy Normandy Normandy Normandy Normandy North America, French explorations in North Carolina Regulated deer hunting 191.5 Northwest, Oid Vincennes 973.3 Northwest territories, Can- ada New York (city) Niploon trails (Niplgon trails (Niplgon trails (Nonads of the ocean 598.2 Norellus, Martha (as sub- Normandy Normandy North America, French explorations in North Carolina Regulated deer hunting 191.5 Northwest, Oid Vincennes 973.1 Northwest territories, Can- ada Northwest territories, Can-	589.2	Where the moose runs	mas Niikka
America's heritage 369.43 Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook of the North 919.8 Nanook the Eskimo 919.8 Nanook the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook of the ocean 598.2 New England fisheries—cod 639 New England fisheries—639 New England fisheries—639 New England states 917.4 New England states 917.4 New Orleans Normandy Normandy Normandy North America, French explorations in North Carolina Regulated deer hunting 799.2 Northwest, Old Vincennes 973.2 Northwest, Old Vincennes 973.3 Northwest territories, Cantada 100 Northwest territori		10050	Nimrods in duckland 598.2
Nanook and his family. See Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook, the Eskimo 919.8 Narcissus Paper white narcissus 583 National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks and reserves Roads in our national parks See also Forest reserves; also names of national parks, e.g. Gla- New England states 973.2 Pligrims 973.2 New England fisheries—cod 639 New England fisheries—cod 639 New England fisheries—639 Normandy North Carolina Regulated deer hunting Northwest, Oid Vincennes Northwest, Cid Vincennes Northwest territories, Can- ada Northwest territories, Can- ada	N	Amonian's harltage 369.43	
Nanook, the Eskimo 919.8 Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook of the North 919.8 Nanook the Eskimo 919.8 Narcissus Paper white narcissus 583 National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks and reserves Roads in our national parks 917.8 See also Forest reserves, also names of national parks, e.g. Gla- Normads of the ocean 598.2 Normads of the ocean Nomads of the sea 598.2 Norelius, Martha (as sub- Ject) Crystal champions 797.2 Normandy Apple-blossom time in Normandy 914.4 North America, French explorations in North Carolina Regulated deer hunting 799.2 Northwest, Oid Vincennes 973.3 Northwest, Oid Vincennes 973.3 New York (city) Now York (city) Norelius, Martha (as sub- Ject) Crystal champions 797.2 Normandy 4pple-blossom time in North America, French explorations in North Carolina Regulated deer hunting 799.2 Northwest, Oid Vincennes 973.3 Northwest territorles, Can- ada Northwest territorles, Can- ada Northwest territorles, Can-	Nanook and his family. See	New England states 917.4	Noerdlingen-annum 1634 943
Nanook builds an igloo. See Nanook, the Eskimo 919.8 Nanook of the North 919.8 Nanook, the Eskimo 919.8 Narcissus Paper white narcissus 583 National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks and reserves Roads in our national parks 917.8 See also Forest reserves New Orleans Normandy Apple-blossom time in Normandy Normandy Apple-blossom time in Normandy North America, French explorations in North Carolina Regulated deer hunting 799.2 Unburned woodlands Northwest, Old Vincennes Northwest, Old Vincennes Northwest territorles, Cansattonal parks, e.g. Gla-	Nanook, the Eskimo 919.8	History	Nomads of the ocean
Nanook of the North Nanook, the Eskimo Nanook Normandy North America, French ex- National parks and reserves New Orleans New Orleans New Orleans North Carolina Regulated deer hunting Northwest, Oid Vincennes Northwest, Oid Vincennes Northwest territorles, Can- ada Northwest territorles, Can- ada Northwest territorles, Can- ada National parks New Orleans North Carolina Regulated deer hunting Northwest, Oid Vincennes Northwest territorles, Can- ada Northwest territorles, Can- ada	Manook hijilds an igloo, See	111811111111111111111111111111111111111	
Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook the hunter. See Nanook, the Eskimo 919.8 Nanook the hunter. See Nanook the hunter. See Nanook the hunter. See New England fisheries— New England fisheries— Normandy Normandy North America, French explorations in North Carolina Regulated deer hunting 799.2 Northwest, Old Vincennes 973.5 New Orleans 917.63 Northwest, Old Vincennes 973.5 Northwest territories, Cansactory of Northwest territories, C	Nanook of the North 919.0	I di i tali	(ect)
Nanook, the Eskimo 919.8 Nariosus Paper white narcissus 583 National bird refuges 598.2 National forests. See Forest reserves Roads in our national parks and reserves Roads in our national parks See also Forest reserves; also names of national parks, e.g. Gla- Nanook, the Eskimo 919.8 mackerel 639 New England states 917.4 New Orleans New Orleans 917.63 New Orleans New Orleans 917.63 New Orleans 917.63 New Orleans 917.63 New Orleans 917.63 Northwest, Oid Vincennes 973.3 Northwest, Oid Vincennes 973.3 Northwest territories, Canada 100 North 917.12	Nanook, the Eskimo 919.8	New England fisheries-	Orgotta onting
Narcissus Paper white narcissus 583 National bird refuges 598.2 National forests. See Forest reserves National parks and reserves Roads in our national parks 917.8 See also Forest reserves; also names of national parks, e.g. Gla-	Nanook the Eskimo 919.8	mackerel 639	Normandy
National bird refuges 598.2 National forests. See Forest reserves National parks and reserves National parks and reserves Roads in our national parks 917.8 See also Forest reserves; also names of national parks, e.g. Gla-	Narcissus	14CAA THIPITATION DOCTOR	
National forests. See Forest reserves National parks and reserves Roads in our national parks Parks See also Forest reserves; also names of national parks, e.g. Gla- New South New South New South New Orleans North Carolina Regulated deer hunting 799.2 Unburned woodlands Northwest, Old Vincennes 973.3 Northwest territories, Canada Northwest territories, Canada Northwest territories, Canada	1 apri winto marena		North America, French ex-
reserves National parks and reserves Roads in our national parks See also Mardi gras, New Orleans New Orleans New Orleans New Orleans New Orleans New Orleans New Orleans North Carolina Regulated deer hunting 799.2 Unburned woodlands Northwest, Oid Vincennes 973.3 Northwest, Oid Vincennes 973.4 New York (city) Nown North Carolina Regulated deer hunting Onthwest, Oid Vincennes 973.4 Northwest territories, Can- ada North Carolina Regulated deer hunting Onthwest, Oid Vincennes 973.4 Northwest territories, Can- ada North Carolina Regulated deer hunting Onthwest, Oid Vincennes 973.4	I de l'orient de l		protestion and
Roads in our national parks 917.8 See also Forest reserves; also names of national parks, e.g. Gla- New Orleans 917.63 Northwest, Oid Vincennes 973.3 Northwest territories, Canada ada ada ada ada ada ada ada ada ad		See also Mardi gras,	Regulated deer hunting 799.2
parks 917.8 See also Forest reserves; also names of national parks, e.g. Gla- New York (city) New York (city) New York (city) Northwest, Old Vincennes 973. Northwest territories, Canada ada New York (city) New York (city) Northwest, Old Vincennes 973.	National parks and reserves	0.4= 0.0	Unburned woodlands 799
See also Forest reserves; also names of national parks, e.g. Gla-New York (city) New York (city)		01100010	
serves; also names of national parks, e.g. Gla- New York (city) ada 917.12	See also Forest re-	14011 200111	V 111001111012
national parks, e.g. Gla-	serves; also names of	11011 10100 1118-1119	ada
		New York impressions 917.471	

Norway	Ontario	P
Children of Scandinavia 914.8 Norwegian sketches 914.81	Angler's idyll 799.1 Fishin' time 799.1	Pacific coast salmon 597
Norwegian sketches 914.81 Norwegian sketches 914.81	In quest of the bronze- back 799.1	Pacific coast salmon Pacific mountains and low- lands 917.9
Notation, Musical. See Musical notation	Invading muskieland 799.1	Pacific states 917.9
Nova Scotia Apples of Annapolis 634.1	Motor boat ramble 797.1 Nipigon trails 797.1	Pacific mountains and lowlands 917.9
Land of Evangeline 917.16	Region of romance 917.13	Roads from surf to sum-
Magic Minas 917.16 Maritime provinces 917.1	Where snowtime is joy-	mit 917.9
'Mid sunshine and sea breezes 917.16	time 796.9 With dog team and snow-	See also California; Oregon; Washington
Seaside summerland 917.16	shoes 917.13	(state)
When guide meets guide 796.5	See also Lake of bays, Ontario	Pacifism. See Peace Packing industry. See Meat
See also Acadia; Cape Breton; Halifax, Nova	Optical instruments 535.8	industry and trade Padre Sahib 266
Scotia	Orange Golden orange 634.3	Pageantry of India 915.4
Numismatics Medal maker 737	Orchard irrigation 626.8	Pageantry of India 915.4 Painting a portrait by Wayman Adams 757
Nunn, Bush and Weldon shoe company, Milwau-	Orchards. See Fruit culture Orchids	Paleontology
kee	Aristocrats of the flower world 583	How living things find a home on the earth 591.57
Fifty-two pay checks each year 331.2	Orchids 583	Lost world 591.57
Nurses and nursing Doctor 610	Orchids, lilies, iris, pas- sion flower, chrysanthe-	Dalectine
Henry street visiting	mums, rose, lotus and	Holy Land 915.69 In hallowed paths 915.69 Paths in Palestine 915.69 Pilgrimage through Pales-
nurse service 649 Home nursing—routine	cotton growing or open- ing and seed germinat-	Paths in Palestine 915.69 Pilgrimage through Pales-
procedures 649	ing 583 Orchids, lilies, iris, passion	tine 915.69
procedures 649	flower, chrysanthemums,	Palma de Mallorca Mediterranean mecca 914.6
Home nursing—the bed 649	rose, lotus and cotton growing or opening and	Panama canal Eastman 918.6
Nuthatches	seed germinating 583 Oregon	Panama canal. General
In birdland 598.2 Some friendly birds 598.2	Civilian conservation corps	electric 918.6 Panama canal and its his-
Nutrition Food and growth 613.2	at work—Oregon and Washington 634.909	torical significance 918.6 Panama canal and its his-
Food makes a difference 613.2	Oregon country 917.95	torical significance 918.6
	See also Crater Lake; Hood, Mount	Paper making and trade From tree to newspaper 676 Kashmir, old and new 915.4
0	Oregon country 917.95	Kashmir, old and new 915.4
Oats	Ornithology. See Birds Osteopathy	Making a book 655 Paper-making 676 World of paper 676
Ten pounds to the bushel 633.1	Dan's decision 610	World of paper 676 Paper white narcissus 583
Obedience	Our animal friends and foes 598.2	Parade of comic balloons 629.1
Obedience 173 Obelia 593		Paramecium Living cell 593
Oberammergau and the Passion players 792.1	Our ant gang 595.796 Our common birds 598.2	Microscopic animal life 593 Simple animal forms 593
Obesity. See Corpulence Occupation, Choice of. See	Our common enemy—the fly	Tiny water animals 591.92
Profession, Choice of	595.77 Our daily bread 633.1 Our earth 551	Parasites How plants and animals
Shore lines and shore de-		cause disease 589.95 Parasitic plants
velopment 551.36	Our four-footed helpers 599 Our pets. See Pets 636	Dodder 583
welopment 551.36 Work of waves 551.36 Ocean cables. See Cables,	Our seaside friends and	Paris Cafe life in Paris 914.436
Submarine Ocean liners 387	their country cousins. See Seaside friends and	Nine glories of Paris 914.436
Ocean travel	country cousins 594	Paris markets 914.436
Electric ship 917	Our wild-life resource 799	Paris 914.436 Paris markets 914.436 Paris markets 914.436 Passion flowers
Ocean liners 387 Octopus	Out of the silence 617.8 Out where the sound begins 778	Orchids, lilies, iris, pas-
Molluscs 594	Outdoor life	sion flower, chrysanthe- mums, rose, lotus and
Seaside friends and country cousins 594	America's heritage 369.43 When guide meets guide 796.5	cotton growing or open- ing and seed germinat-
Ogg. Frederic Austin	Outdoors in Colorado 917.88	_ ing 583
Old Northwest. See Vincennes 973.3	Overland journeys to the Pacific	Passion plays Oberammergau and the
Ohio valley	Overland to California 978	Passion players 792.1 Pasteur, Louis (as subject)
History	Overland to California 978	Armies of health and
Settling the Ohio valley 973.4 Vincennes 973.3	Owls Adventures of Peter 599	disease 589.95 Man against microbe 589.95
Oil. See Petroleum	Birds of prey 598.2	Patagonia Argentina 918.2
Oil engines. See Gas and oil engines	Our common birds 598.2 Oxidation	Paths in Palestine 915.69
Oil wells. See Petroleum	Oxidation and reduction 540	Paul, Gibbs, Fleuss-Davis,
Old Jake wakes up 632.7	Oxidation and reduction 540 Oxygen breathing apparatus	and McCaa apparatus Oxygen breathing appara-
Old Northwest. Ogg, F. A. See Vincennes 973.3	614.8	tus 614.8
See Vincennes 973.3 Old South 917.5	Oysters Life history of the pearl 594	Peace Why? 172.4
On the Skeena river 639	Oysters 594	Peanuts
Once upon a time 629.213	Seaside friends and coun- try cousins 594	Peanuts 634.5 Peanuts—\$30,000,000 worth
One-point landings 629.1	Sexual reproduction 594	634.5

Peanuts—\$30,000,000 worth 634.5	Photography $Films$	Pipe Electric needle 671W
Pearls Life history of the pearl 594	Finding his voice 778	Story of steel 669.1 Pirates of the sky 598.2
Peas	Moving pictures	Pisciculture. See Fish cul-
Peasant wedding in Hesse 392	See Moving pictures	Pitcher plants Plant traps 581.5
Pecheurs d'islande Pediatrics. See Children-	Photography of birds Nimrods in duckland 598.2	Plant traps 581.5 Plane geometry. See Geom-
Care and hygiene	Physical education—boys 613	etry
Pelicans Birds of the seacoast 598.2	Physical education—car- riage 613	Plant lice
Pennsylvania	Physical education—children	Aphids 595.7 Plant life 581
CCC accomplishments in Pennsylvania 634.909	Physical education—children	Plant physiology. See Bot-
Pens	aged 7 Physical education—girls 613 613	any—Physiology Plant propagation
Boonle who live at the equa-	Physical education—rural	Naturalized plant immi-
tor People who live by the sea 573.4	School Physical education and	Plant traps 581.5
People who live in a crowd-	training	Plantation singers. See Stephen Foster 92
People who live in the Arc-	Analysis of exercises per- formed with a rhyth-	Planting. See Agriculture;
tic 573.4	mical swing 613 Physical education—boys 613	Gardening; Landscape gardening; Tree plant-
People who live in the desert 573.4	Physical education—chii-	ing
People who live in the mountains 573.4	Physical education—chil-	Planting and care of trees 715 Plants
People who live on a great	dren aged 7 Physical education—girls 613 Construction—girls 613	Fertilization
People who live through in-	Physical educationrurar	See Fertilization of plants
dustry 5/3.4	school 613 Physical geography	Geographical distribution
Percussion instruments	The earth	See Geographical dis-
Percussion group /89	Our earth 551 Physicians 510	tribution of animals and
(Ward)	Doctor	plants
Models in motion 741 Perry, Newton (as actor)	Physiology Man 612	Irritability and movements Reactions in plants and
Crystal champions 191.2	Physiology, Vegetable. See	animals 574
Gorgon's head 291	Physiology of mastication of the	Nutrition
Persia	Pied Piper of Hamelin F	Queer diet 581
Peru	Did iron to steel 005.1	Propagation
Peru 918.5 Wings over the Andes 918.5	Pigmentation. See Color of animals	See Plant propagation
Pests. See Insects, Injurious	Pigmies. See Dwarfs Pigs. See Swine	Reproduction Gift of life 613.9
and beneficial Peter Stuyvesant 973.2	Pilgrimage through Pales-	Gift of life 613.9 Plants, Parasitic. See Para-
Petrifaction	tine 913.09 Pilgrims 973.2	sitic plants
Ground water 551.49 Petroleum	Pillars of salt 664.4	sitic plants Plants, Tropical. See Trop- ical plants
Evolution of the oil in-	Pillars of the sky 674	Plants, Useful. See Botany, Economic
Petroleum, the liquid min-	Pillsbury, Arthur C. Animal and bird life in	Plaster casts
eral 665.5 Producing crude oil 665.5	Yosemite national park 391.9	From clay to bronze 739
Refining crude oil 665.5 Refining the crude 665.5 Story of gasoline 665.5 Story of lubricating oil 665.6	Cotton buds and cotton balls 677.2	Inside story of your tele-
Story of gasoline 665.5	Evening primrose, mari-	Play of imagination in ge- ometry 513
Story of lubricating oil 665.5 Story of petroleum 665.5	posa tulip, Washington lily, hen and chickens,	500.6
Through oil lands of	and others 583 Flower life in Yosemite	Ployers
Europe and Africa— Germany, France, Spain,	national park 583	Plover 598.2 Wading birds 598.2
Morocco, and Algeria 665.5	Germinating, and black- berry lily 583	Poland
Through oil lands of Europe and Africa—	Iris, lupine, pride of the mountains 583	'Neath Poland's harvest
Italy, Hungary, the Danube, and Rumania 665.5	Life in the South seas 919.6	skies 914.38 Through oil lands of Eu-
Through oil lands of	Orchids 583 Orchids, lilies, iris, pas-	rope and Africa—Po-
Europe and Africa—Po- land, Greece, and Egypt	sion hower, chrysanthe-	land, Greece, and Egypt 665.
6,600	mums, rose, lotus and cotton growing or open-	Pole wood. See Electric
Through the oil fields of Mexico 665.5	ing and seed germinat-	lines—Poles Policing the Arctic 919.8
Petroleum, the liquid min-	Poppy, wild parsnlp 583	Pollination. See Fertiliza- tion of plants
eral 665.5 Pets 636	Tiger lily, vesper iris,	Pond and stream 591.93
Phalaropes Wading birds 598.2	sprouting bean 583	Pond insects 591.93
Phantoms. See Ghosts	Pineapple Hawaiian Islands 919.69	Pony express Poppies
Pheasants	Pioneer life. See Frontier	Poppy, wild parsnip 58
Game birds 598.2	and pronoct into	Poppy, wild parsnip 58
Phelps, J. Manley Fifty-two pay checks each	Pioneers of the old South. Johnston, M. See James-	Porcelain. See Pottery Porcupines
year 331.2	town 9/3.1	Adventures of Peter 59
Philately. See Postage stamps	Ploneers of the old South- west. Skinner, C. L. See Daniel Boone 92; Fron-	Portland cement. See Ce-
Philippine Islands	Daniel Boone 92; Fron- tier woman 978	ment Porto Rico. See Puerto Rico
Philippine Islands 919.14		

Portrait painting Painting a portrait by Wayman Adams 757	Prince Edward Island Maritime provinces 917.1 Printing	Quebec (province) Province of Quebec 917.14 River of deep waters 917.14
Uncle Sam's stamp factory 383	Making a book Proctor, Alexander Phimister (as actor)	See also Gaspé penin- sula
Postal service Pony express Posture	Making of a bronze statue 739	Queen of the waves 387 Queer diet 581
Good posture wins 613 Physical education—car-	Producing quality chicks 636.5 Profession, Choice of	R
Posture. DeVry 613 Posture. Eastman 613	Builders 690 Choosing your vocation 371.42	Rabbit farming 636.9
Posture and locomotion 612.76 Potato enemies 632.7 Potatoes	Dan's decision 610 Doctor 610 Engineer 620	Rabbits Bre'r Rabbit and his pals 599 Fur industry of the
Hidden foes in seed pota- toes 635.2	Executive 658 Guidance in public schools	Furry creatures 636.9
How and why of spuds 635.2 Potato enemies 632.7 Potatoes—early and late 635.2	Industrial worker 331.8 Mechanics of the nation's	Rabbit farming 636.9 Raccoons Fur industry of the
Potatoes—early and late 635.2 Potter's wheel 738 Pottery	market place 332.6 Men's clothing industry 687	United States 636.9 Great raccoon hunt F Raccoon 599
Potter's wheel 738 Pottery maker 738	Skilled mechanic 621 Progressive training in "ball	Radiation, Solar. See Solar radiation
Tableware 738 Pottery maker 738 Poultry	handling" games 796 Projection, Lantern. See Lantern projection	Radio Communication 621.38 Family album 621.38 Sky harbor 621.38
Brooding and rearing chicks 636.5 Care of baby chicks 636.5	Plant propagation	Sky harbor 621.38 Wizardry of wireless 621.38 Radioactive substances. See
Development of a bird	Birds—Protection Protection of game. See	Radioactivity Radioactivity
Embryology of the egg 591.3 Layers or loafers 636.5 Marketing live poultry 631.18 Preparation and market- ing of dressed poultry 636.5	Game protection Protestant reformation. See Reformation	Radioactive rays 539.7 Radiolaria Adventure in Tripoli 593
Preparation and market- ing of dressed poultry 636.5 Producing quality chicks 636.5	Protoplasm Elementary animals 593	Railroad safety 625 Railroad ties. See Railroads —Ties
Brooding and rearing	Protoplasm—the begin- ning of life 593 Protoplasm—the beginning	Railroads Development of transpor-
Power. See note under Story of power 621	of life 593 Province of Quebec 917.14 Psychological tests. See	tation 380 Railroad safety 625 Transportation 385
Power (Mechanics) Energy and work Story of power 621.312	Mental tests Public health Disease carriers 614	Ties Ties of steel 625
Power boats. See Motor boats Power plants, Electric. See	How to prevent disease 614	Railroads, Electric. See
Electric power plants Power transformers 621.31	Serving the community 614 Publishers and publishing Books—from manuscript to classroom 655 Pueblo dwellers 970.1	Railways. See Railroads Raking coffee. See Models
Power within—construction, operation, and care of the internal-combustion	Pueblo Indians	Ramble in Erln 914.15 Rambles in Gaspesia 917.14
engine 621.4 Practical ethics. See Conduct of life	Rio Grande 917.8 Puerto Rico.	Ranch life Cattle 636.2 Cattle ranch 636.2 Great plains 917.8
Prairie-dogs Bre'r Rabbit and his pals 599	From Haiti to Trinidad 917.29 Puerto Rico 917.295 Puffins	Tenderioot trails 917.11
Furry creatures 599 Praying mantis Animal camouflage 591.57	Nomads of the ocean 598.2 Pumas Cougar hunt 599	See also Cowboys Random glimpses of Cape Breton 917.16
Killers 595.7 Prehistoric fauna. See Pa- leontology	Cougar hunt 599 Cougar, the killer 599 Pure food. See Food adul-	Range sheep 636.3 Rats Food and growth 613.2
Preparing for a garden 635 Preparing to Irrigate 626.8 Preparation and marketing	teration and inspection Purifying water 628.1	How to get rid of rats 632.6 Rayon, See Silk, Artificial
of dressed poultry 636.5 Preservation of forests. See	Puritans Pilgrims 973.2 Puritans 973.2	Reactions in plants and ani- mals Reading
Forests and forestry Preserving. See Canning and preserving	Push car trails in Formosa 915.29	Teaching of reading 372.4 Realm of the honeybee 595.79 Reapers. See Harvesting
Press. See Journalism; Newspapers Preventing blindness and	Pygmies. See Dwarfs Pyramids	machinery Reclamation of land
saving sight 617.7 Prevention of accidents. See	Temples and tombs of ancient Egypt 932	Anchored acres 631.4 Story of federal reclama- tion 626.8
Accidents—Prevention Prevention of cruelty to animals. See Animals—	0	Red-head 613 Reduction, Chemical Oxidation and reduction 540
Treatment Preventive medicine. See	Qualis	Refining crude oil 665.5 Refining the crude 665.5 Reforestation 634.9
Public health Primary batteries. See Electric batteries	Game birds 598.2 Quality milk 637	Reformation Martin Luther—his life and times 92
Primary education. See Ed- ucation of children	Quarries and quarrying Modern quarry blasting 622.2 Quebec (city)	Refrigeration and refriger-
Primary teacher at work 372 Primitive religions 290	Where winter sport is king 796.9	Region of romance 917.13

Religions Primitive religions 290	Along the Alaskan coast	Rumania
Repairing	line 917.98	Children of Roumania 914.98 Through oil lands of Eu-
Home is what you make	Trail mates 917.98 Work dogs of the North 636.7	rope and Africa—Italy,
Reproduction	Robin Hood	Hungary, the Danube,
Gift of life 613.9	In the days of chivalry 942.03 Robin Hood, junior F	and Rumania 665.5
Reproduction in higher forms 613.9	Robin Hood, junior F Robinson Crusoe F Robson trail 917.1	
Demoderation in lower	Robson trail 917.1	S
forms of life 613.9	Rocks Earth's rocky crust Formation of soil Rockweed 551 551.3 806 589.3	
	Formation of soil 551.3	Sacrifice of the mass 264 Safety at sea 614.8
forms 613.9	Rockweed 589.3 Rocky mountain mammals 591.9	Safety at sea 614.8 Safety education. See Acci-
Reproduction in lower forms of life 613.9	Rocky mountains	dents—Prevention
Reptiles	Rocky mountains 91/.8	Safety in the use of explo-
	Rocky mountains, Canada Amid Alpine snows 796.5	sives in open-pit iron mining 622
See also Crocodiles; Serpents	Bit of high life 917.123 Kicking horse trail 917.123	Saguenay river
Donningtion	Motoring in cloudland 917.123	River of deep waters 917.14 Sahara
Artificial respiration 614.8 Breathing. Eastman 612.2 Breathing. Gaumont Brit-	Mountaineering memories	Life in the Sahara 916.6
Breathing Gaumont Brit-	796.5 Tenderfoot trails 917.11	St Lawrence gulf Home of the birds 598.2
ish 612.2 How we breathe 612.2	See also Assiniboine,	Salamanders
How we breathe 612.2 Restaurants, lunch rooms,	Mount	Frogs, toads, and sala- manders 597.8
	Rodeo. See Models in mo-	manders 597.8 Salesman 658
School industries 371.7 Revelations by X-ray 537.5	tion /41	Salesmen and salesmanship
Revere. Paul (as subject)	Cattle 636.2	Salesman 658 Salmon
Revere, Paul (as subject) Silver: heirlooms of to-	Ride 'em cowboy 917.123	Day at the river 597
	Romance of glass 666.1	Inshore fishing on the At- lantic coast 639
Revolution, American. See U.S. — History — Revo-	Rodeos 636.2 636.2 Ride 'em cowboy 917.123 Rollin' down to Rio 918 Romance of glass 666.1 Romance of rayon 677.4 Romance of rubber 678 Romance of shoemaking 678 6	Maintaining the salmon
lution	Romance of rubber 675	
Rhapsody in steel 629.2 Rhine river	Romantic Ruine	On the Skeena river 639 Pacific coast salmon 597 Salmon angling on the
Romantic Rhine 914.3	Romantic story of silk 677.4 Roosevelt, Theodore (as	
Rhinoceros Three jungle giants 599 Rhizopoda	nublect)	Restigouche 917.15 Salmon fishing on the
Rhizopoda	Roosevelt, friend of the	Skeena. 639
Elementary animals 593 Rice and rice culture		Story of a can of salmon 639 Work of the river 551.48
Formers of Formosa 630.952	Roosevelt, the great scout 92 T. R. himself	Salmon angling on the Res-
Food shot from guns 033.1	Roosevelt dam, Arizona	tigouche 917.15
Philippine islands 919.14 Rich young ruler. See note	Poorevelt friend of the	Salmon fishing on the Skeena 639
under Christ confounds	Diras	Colé
His critics, class 232 Richman, Irving Berdine	Roosevelt series Roosevelt, friend of the	Common salt 664.4 Pillars of salt 664.4 Salzburg Austria
Chanish conductors See	hirds 390.4	
Columbus 973.1 Ride 'em cowboy 917.123 Riding skyward 621.87 Rio Grande river Rio Grande 917.8 River of deep waters 917.14	Roosevelt, the great scout 92 T. R. himself 92	Picturesque Salzburg 914.36 Samia cecropia, the giant
Riding skyward 621.87	Roosevelt, the great scout 92	American silkworm 595.78
Rio Grande river	Roots (Botany) 581	Samisens. See Musical in-
Rio Grande 917.8	Roots of plants 581	struments, Japanese Samoa
River of deep waters 917.14	Roots (Botany) Roots 581 Roots of plants 581 Roots of plants 581 Roses 132 liles in page	Life in the South seas 919.61
Cycle of erosion 551.3		Samoa — coco-nuts and copra 919.61
The earth	gion flower, chrysanthe-	Samoa—coco-nuts and copra
Sculpture of the land by rivers 551.48	inuins, rose, lotus and cotton growing or open-	919.61 San Francisco
Work of rivers. Erpi 551.48 Work of rivers. Soc. for	ing and seed germinat-	Electric chin 017
Work of rivers. Soc. for visual educ. 551.48	Rossini, Gioacchino Antonio	Golden gate 979.4 Sand, George, pseud. (as
Work of running water 551.48		
	(as subject)	subject)
Work of the rivers 551.48	Gioacchino Rossini 92	Frederick Chopin 92
Boods	Gioacchino Rossini 92 Rossiter, Henry P. Drypoint 767	Frederick Chopin 92
Roads Building forest roads 625.7 Concrete road construction	Gioacchino Rossini Rossiter, Henry P. Drypoint Etcher's art 767	Frederick Chopin 92 Sand Sand and clay 553.5 Sand and clay 553.5
Roads Building forest roads 625.7 Concrete road construction 625.7	Gloacchino Rossini Rossiter, Henry P. Drypoint Etcher's art Rotation of the earth. See	Frederick Chopin Sand Sand and clay Sand and clay Sand pipers 553.5 Sandpipers
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380	Gloacchino Rossini Rossiter, Henry P. Drypoint Etcher's art Rotation of the earth. See Earth—Rotation	Frederick Chopin Sand Sand and clay Sand and clay Sand and clay Sandpipers Wading birds 598.2
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway heautification 625.7	Gloacchino Rossini Rossiter, Henry P. Drypoint 767 Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life 593	Frederick Chopin Sand Sand and clay Sand and clay Sand pipers 553.5 Sandpipers
Boads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation Highway beautification 625.7 Men who build the roads 625.7	Gloacchino Rossini Rossiter, Henry P. Drypoint Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Com-	Frederick Chopin Sand Sand and clay Sand and clay Sandpipers Wading birds Sands, Dorothy (as actor) Hidden talisman Sardines
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks 917.8	Gloacchino Rossini Rossiter, Henry P. Drypoint Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic	Frederick Chopin Sand Sand and clay Sand and clay Sand pipers Wading birds Sands, Dorothy (as actor) Hidden talisman Sardines From catch to can 639
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks Roads to wonderland 917.9	Gloacchino Rossini Rossiter, Henry P. Drypoint Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conductor 670	Frederick Chopin Sand Sand and clay Sand and clay Sand poly Sand and clay Sand and clay Sand Sand Sand Sand Sand Sand Sand Sand
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks Roads to wonderland 917.9 Yosemite's new roads 917.94	Gloacchino Rossini Rossiter, Henry P. Drypoint 767 Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conductor Conquering the jungle 678	Frederick Chopin Sand Sand and clay Sand and clay Sand pipers Wading birds Sands, Dorothy (as actor) Hidden talisman Sardines From catch to can Sartorius, Mrs Ina (Cralg) Few tests of child intelligence 371.26
Boads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks Roads to wonderland 917.9 Yosemite's new roads 917.94 See also Streets Roads from surf to summit	Gloacchino Rossini Rossiter, Henry P. Drypoint Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conductor Conquering the jungle Inside story of your telephone 621.385	Frederick Chopin Sand Sand and clay Sand and clay Sand piers Wading birds Sands, Dorothy (as actor) Hidden talisman Sardines From catch to can Sartorius, Mrs Ina (Cralg) Few tests of child intelligence Save the soil Sands Sands, Dorothy (as actor) (709 Sardines (709 Sardines (709 Sartorius, Mrs Ina (Cralg) (709 Sartorius, Mrs Ina (Cralg) (709 Save the soil Save the soil
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks Roads to wonderland 917.9 Yosemite's new roads 917.94 See also Streets Roads from surf to summit 917.9	Gloacchino Rossini Rossiter, Henry P. Drypoint Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conductor Conquering the jungle Inside story of your telephone phone Island of yesterday 919.21	Frederick Chopin Sand Sand Sand and clay Sand pipers Sandpipers Wading birds Sands, Dorothy (as actor) Hidden talisman Sardines From catch to can Sartorius, Mrs Ina (Cralg) Few tests of child intelligence Save the soil Saving and thrift
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks 917.8 Roads to wonderland 917.9 Yosemite's new roads 917.94 See also Streets Roads from surf to summit 917.9 Roads in our national parks	Gloacchino Rossini Rossiter, Henry P. Drypoint 767 Eltcher's art 767 Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conductor Conductor Conquering the jungle 678 Inside story of your telephone 621.385 Island of yesterday 919.21 Romance of rubber 678 Rubber 678	Frederick Chopin Sand Sand and clay Sand and clay Sand-pipers Wading birds Sands, Dorothy (as actor) Hidden talisman From catch to can Sartorius, Mrs Ina (Cralg) Few tests of child intelligence Save the soil Saving and thrift Thrift Say, 553.5 S53.5 S63.5 S63.5 S63.5 S63.5 S63.5 S63.5 S63.5 S63.6 S6
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks 917.8 Roads to wonderland 917.9 Yosemite's new roads 917.94 See also Streets Roads from surf to summit 917.9 Roads in our national parks 807.8	Gloacchino Rossini Rossiter, Henry P. Drypoint 767 Etcher's art 767 Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conquering the jungle 670 Conquering the jungle 671.385 Island of yesterday 919.21 Romance of rubber 678 Rubber 678 Rubber 678 Rubber 678	Frederick Chopin Sand Sand and clay Sand and clay Sand and clay Sandpipers Wading birds Sands, Dorothy (as actor) Hidden talisman Sardines From catch to can Sartorius, Mrs Ina (Cralg) Few tests of child intelligence Save the soil Saving and thrift Thrift Saving seconds 629.213
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks 917.8 Roads to wonderland 917.9 Yosemite's new roads 917.94 See also Streets Roads from surf to summit 917.9 Roads in our national parks Roads to wonderland parks 917.8 Roads to wonderland 917.9	Gloacchino Rossini Rossiter, Henry P. Drypoint 767 Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conductor Conductor Conquering the jungle Inside story of your telephone 621.385 Island of yesterday 919.21 Romance of rubber 678 Rubber Rubber 678 Rubber 678 Story of the tire 678	Frederick Chopin Sand Sand and clay Sand and clay Sand-pipers Wading birds Sands, Dorothy (as actor) Hidden talisman From catch to can Sartorius, Mrs Ina (Cralg) Few tests of child intelligence Save the soil Saving and thrift Thrift Say, 553.5 S53.5 S63.5 S63.5 S63.5 S63.5 S63.5 S63.5 S63.5 S63.6 S6
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks 917.8 Roads to wonderland 917.9 Yosemite's new roads 917.94 See also Streets Roads from surf to summit 917.9 Roads in our national parks 917.8 Roads to wonderland 917.9 Roads in our national parks 917.8 Roads to wonderland 917.9 Robert I, king of Scotland (as subject)	Gloacchino Rossini Rossiter, Henry P. Drypoint Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conductor Conductor Conquering the jungle Inside story of your telephone Island of yesterday Story of rubber Rubber G78 Rubber G78 Rubber G78 Rubber tires. See Tires	Frederick Chopin Sand Sand and clay Sand and clay Sand and clay Sandpipers Wading birds Sands, Dorothy (as actor) Hidden talisman Sardines From catch to can Sartorius, Mrs Ina (Cralg) Few tests of child intelligence Save the soil Saving and thrift Thrift Saving seconds Saving the soil by terracing Schildkraut, Joseph (as
Roads Building forest roads 625.7 Concrete road construction 625.7 Development of transportation 380 Highway beautification 625.7 Men who build the roads 625.7 Roads in our national parks 917.8 Roads to wonderland 917.9 See also Streets Roads from surf to summit 917.9 Roads in our national parks 917.8 Roads from surf to summit 917.9 Roads in our national parks 917.8 Roads to wonderland 917.9 Roads to wonderland 917.9 Roads to wonderland 917.9 Robert I, king of Scotland	Gloacchino Rossini Rossiter, Henry P. Drypoint 767 Etcher's art Rotation of the earth. See Earth—Rotation Rotifera Microscopic animal life Roumania. See Rumania Routes of trade. See Communication and traffic Rubber Conductor Conductor Conquering the jungle Inside story of your telephone 621.385 Island of yesterday 919.21 Romance of rubber 678 Rubber Rubber 678 Rubber 678 Story of the tire 678	Frederick Chopin Sand Sand Sand and clay Sand and clay Sand-pipers Wading birds Sands, Dorothy (as actor) Hidden talisman From catch to can Sartorius, Mrs Ina (Cralg) Few tests of child intelligence Save the soil Saving and thrift Thrift Saving seconds Saving the soil by terracing 631.4

Schlesinger, Hermann Irving Electrostatics 537	Dissemination	Romantic story of silk 677.4
Electrostatics 537 Energy and its transfor-	Seed dispersal 581	Silk 677.4 Silk, Artificial
mations 530	Germination	Romance of rayon 677.4
Fundamentals of acous- tics 534	See Germination	Silkworms
Molecular theory of mat-	Seeds and seedlings 581	From cocoon to kimona 677.4 Moths 595.78
ter 539	Seeing Yosemite 917.94	Samia cecropla, the giant
Oxidation and reduction 540	Seismography. See Earth- quakes	American silkworm 595.78 Silver
Sound waves and their sources 534	Seismology. See Earth-	Inside story of your tele-
School beautiful 727	quakes Saldes Gilbert	phone 621.385
School books. See Text- books	Seldes, Gilbert This is America 973.9	Silver: heirlooms of to- morrow 739
School discipline 371.5	Selling. See Salesmen and	morrow 739 Silver: heirlooms of tomor-
	salesmanship Serpents	739
School grounds School beautiful School industries 371.7	Down at our pond 597.8	Silversmith 739 Silversmithing
School management and or-	Reptiles 596.1	Sliver 669 2
ganization	Servia Children of the Balkans 914.96	Silver: heirlooms of to-
School discipline 371.5 Science of life series	Service 353	morrow 739 Silversmith 739
Fly as a disease carrier 595.77	Serving the community 614	Silverware. See Silversmith-
How disease is spread 614 How plants and animals	Settling the Ohio valley 973.4 Sewage disposal	ing
cause disease 589.95	Sewage disposal 628.3	Simple animal forms 593 Simple machines 621
How the mosquito spreads	Waste disposal in cities 628.3	Singapore
disease 595.771 How to prevent disease 614	Sewage disposal 628.3 Sewell, Anna	Souvenirs of Singapore 915.1 Singing and stinging 595.771
Protoplasm — the begin-	Black Beauty F Sewing machines Modern industrial meth-	Skees and skee-running.
ning of life 593	Sewing machines	See Skis and ski-run-
Reproduction in higher forms 613.9	Modern industrial meth- ods 687	ning Skeleton
Reproduction in the lower	Sex instruction	Body framework 611
forms of life 613.9	Social hygiene for wom- en 613.9	Sketching, See Drawing
Science, guardian of our milk supply. See Along	en 613.9 Venereal diseases 613.9	Skiing. See Skis and skl- running
the milky way 637	Venereal diseases 613.9 Sexual reproduction 594	Skilled mechanic 621
Scorpions FOE 7	Shadow boxing (defensive). See Models in motion 741	Skimmers
Killers 595.7 Scotland	Shakespeare, William (as	Birds of the seacoast 598.2 Skin
Bonnie Scotland 914.1		Skin 613
Wee Scotch piper 914.1 Scott, Sir Walter	Shakespeare 914.2 Shark fishing 639	Skinner, Constance Lindsay Pioneers of the Old South-
Lady of the lake F	Sharks	west. See Daniel Boone
	Shark fishing 639	92; Frontier woman 978
Sculpture Sculpture in stone 730 Sculpture in stone 730	Sheep Friends to man 636	Skis and ski-running Where snowtime is joy-
Sculpture of the land by	Range sheep 636.3	time 796.9
rivers 551.48	Shenandoah valley	Skunks
Sea. See Ocean Sea anemones	Boone trail 917.5 She's wild 917.8	Adventures of Peter 599 Great raccoon hunt F
Seaside friends and coun-	Ship models	Sky 520
try cousins 594	Hull design 623.8	Sky fleets of the navy 629.1
Some seashore animals 591.92 Sea animals. See Marine	Shipbuilding	Sky harbor 621.38 Skyscrapers
fauna	Hull design 623.8	Builders 690
Sea fisheries. See Fisheries Sea stories	Shippee-Johnson Peruvian expedition	Empires of steel 725 Fabrication and erection
Pecheurs d'islande F	Wings over the Andes 918.5	of the Bank of Manhat-
Sea travel. See Ocean travel	Shipping 200	tan building 725
Sea urchins Beach and sea animals 591.92	Modern commerce 380 Ships	Small arms. See Firearms Smith, David Eugene
Sea urchin 593	Carrying American prod-	Play of imagination in
Some seashore animals 591.92 Seals (Animals)	ucts to foreign lands 382 Electric ship 917	geometry Smith, Fred Colfax. See Vo-
Seals and walruses 599	Queen of the waves 387	cational guidance series
VIKING 639	Rollin' down to Rio 918	Snails
Seals and walruses 599 Seamanship See Navigation	Transportation on the Great Lakes 387	Molluscs Pond and stream life 591.92
Seamanship. See Navigation Seashore, Fun at the F	Shoes. See Boots and shoes	Seaside friends and coun-
Seaside Irlends and country	Shore deposits 551.36	try cousins 594 Snakes. See Serpents
cousins 594 Seaside summerland 917.16	Shore lines and shore development 551.36	Snl-a-bar experimental farm
Seasons	Shorthand	Beetsteak bequest 636.2
Earth and worlds beyond 520 Secondary batteries. See	Correct shorthand tech- nique 653	Wading birds 598.2
Secondary batteries. See Storage batteries	Shrikes	Snow
Secrets of life series	Our common birds 598.2	Mysteries of snow 551.5 Soap
Buzzard 598.2 Home from the South 598.2	Shrubs Wild flowers 583	Soap 668.1
Life in the hedgerows 591.5	Siberia	Social hygiene. See Vene-
Mixed bathing 591.5	Taming the Taiga 915.7	real diseases
Plover 598.2 We are seven 598.2	Sight	Social hygiene for women 613.9
Sedimentation and deposition	How you see 617.7 Preventing blindness and	Social science. See Sociology
Wearing away of the land 551.3	saving sight 617.7	Sociology
Seed, and Chinese lily 583	Silent enemy F	Interdependence 301
Seed dispersal 581	Silk	Service 353
Seeds How seeds germinate 631.5	Conductor 670 From cocoon to kimona 677.4	Sodium chloride. See Salt
Seeds and seedlings 581	Inside story of your tele-	Anchored acres 631.4
Testing seeds in soils 631.5	phone 621.385	Formation of soil 5512

Save the soil 631.4	Black-and-orange garden	Stone, Lewis (as actor)
Saving the soil by terrac-	spider 595.4 Killers 595.7 Spiders, Eastman 595.4 Spiders, Erpi 595.4 Spining 595.4	Lost world Stone, Louise L.
ing 631.4 Testing seeds in soil 631.5	Spiders. Eastman 595.4 Spiders. Erpi 595.4	Primary teacher at work 37 Stone quarries. See Quar-
Solar eclipse of August 31, 1932 520	Art of spinning and weav- ing 677	ries and quarrying Storage batteries
Solar eclipses. See Eclipses Solar engines	ing 677	Story of a storage battery 621.3
Energy from sunlight 621.4	Sponge industry 593.4 Sponges	Storks
Solar phenomena 520 Solar radiation	From the Bahamas to Ja- maica 917.29	Pirates of the sky 598. Story of a can of salmon 63
Energy from sunlight 621.4 Solid geometry. See Geom-	Sponge industry 593.4 Spontaneous combustion.	Story of a can of salmon 63 Story of a storage battery 621.3
etry	See Combustion	Story of asbestos. See As-
Some friendly birds 598.2 Some larger mammals 591.9	Summer playing field activities 796	bestos 553. Story of copper milling 669.
Some seashore animals 591.92 Some water insects 591.92	tivities 796 Sports of sailormen 359	Story of copper mining 669. Story of copper refining 669.
Songbirds at mealtime, Baby 598.2	Spring	Story of copper refining 669. Story of copper smelting 669. Story of dynamite 662.
Songs	Spring 570 Four seasons 570 Springtime miracle 583 Sprinkles of salt 359 Spvri. Johanna	Story of federal reclamation
Jack and Jill in Songland 784 Sorcery. See Magic	Sprinkles of saft 359 Spyri, Johanna	Story of gasoline 665.
Fundamentals of acoustics 534	Spyri, Johanna Heidi of the Alps F Squirrels	Story of lead mining and
Sound waves 534	Adventures of Peter 599	milling 669. Story of lead smelting 669.
Sound waves and their sources 534	Furry creatures 599	Story of leather 67
Apparatus	Tame wild life of Yose- mite 591.9	Story of lubricating oil 665. Story of monel metal 669.
How talkies talk	Stages of child growth 136.7 Stained glass. See Glass	Story of nickel 665.
Sound motion pictures. See Moving pictures. Talk-	painting and staining	Story of petroleum 665. Story of power 62 Story of steel 669.
ing	Stamps, Postage. See Post- age stamps	Story of sulphur. See Sul-
Sound waves and their	Starfishes	pnur
	Marauders of the sea 593.9 Seaside friends and coun- try cousins 594	Story of the airship 629. Story of the fabrication of copper 669.
Continent of South America 918	Some seashore animals 591.92	Story of the gasoline motor
Rollin' down to Rio 918 Under the southern cross 918	Steam Water 628.1	Story of the magnet 53 Story of the Star spangled
See also Amazon val-	Steam boilers. See Boilers	panner 929.
ley; Argentine Republic; Bolivia; Brazil; Chile;	Steam power 621.1	Story of the tire 67. Story of the Women's bu-
Patagonia; Peru	Steam power 621.1 Story of power 621.1 Steam power 621.1 Steam turbines	reau 331.
South Dakota Civilian conservation corps	Steam turbines Modern trend in turbine	Stoves Hot air heating 69
at work—Colorado, Wy- oming, and South Da-	design 621.1	Stratosphere. See Atmosphere, Upper
kota 634.909	Turbine with the solid ro- tor 621.1	Strauss, Johann (as sub- lect)
kota 634.909 Southern states New South Old South 917.5		
	Steamboats Ocean liners 387	Inhann Strongs 9
Old South 917.5 Southern states 917.5	Ocean liners 387 Steamships. See Steamboats	Johann Strauss 9. Street safety—for advanced grades 614.
Southern states 917.5 Souvenirs of Singapore 915.95	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series	Johann Strauss Street safety—for advanced grades 614.
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad-
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Eu-	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands 382	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for advanced vanced grades Streets 614.
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Ger-	Ocean liners Steamships. See Steamboats Stebhins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades 614.
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5	Ocean liners Steamships. See Steamboats Stebhins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Street safety—for ad- vanced grades Streethers Streethers Streethers
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands 382 Heat treatment of steel 669.1 Making an all-steel automobile body 629.2 Pig iron to steel 669.1 Stevel construction	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Streethers First aid—carrying injured String choir 788
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme Spanish, conquerors Rich-	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1 Making an all-steel automobile body Pig iron to steel 669.1 Story of steel 669.1 Steel 725	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Stretchers First aid—carrying injured String choir Stringed instruments
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Cittzenship series Steel Carrying American products to foreign lands 382 Heat treatment of steel 669.1 Making an all-steel automobile body 629.2 Pig iron to steel 669.1 Story of steel 669.1 Steel construction Builders 690 Empires of steel Fabrication and erection	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Streetners First aid—carrying the injured String choir String choir String choir Structural engineering. See
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1 Making an all-steel automobile body 629.2 Pig iron to steel 669.1 Story of steel 669.1 Steel construction Builders 690 Empires of steel 725 Fabrication and erection of the Bank of Manhatan 1725	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Stretchers First aid—carrying the injured String choir String choir Stringed instruments String choir Structural engineering. See Building, Iron and steel
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spark-piugs	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Leat treatment of steel Making an all-steel automobile body Pig iron to steel Stery of steel Steel construction Builders Empires of steel Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Streets safety—for ad- vanced grades Streets first aid—carrying injured String choir Structural engineering. See Building, Iron and steel Struggle of French and English for North
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus Spanish dancer, See Models in motion Spark-plugs Along the firing line, or The story of a spark	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1 Making an all-steel automobile body Pig iron to steel 669.1 Story of steel 669.1 Stery of steel 669.1 Steel construction Builders 690 Empires of steel 725 Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison Stenography. See Shorthand	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Stretchers First aid—carrying the injured String choir Stringed instruments String choir String cho
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spark-piugs Along the firing line, or The story of a spark plug 629.2 Sparrow hawk 598.2	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands 382 Heat treatment of steel 669.1 Making an all-steel automobile body 629.2 Pig iron to steel 669.1 Story of steel 669.1 Stery of steel 725 Fabrication and erection of the Bank of Manhattan building 725 Steinmetz, Charles Proteus. Thomas A. Edison 92 Stenography. See Shorthand Stentor Microscopic animal life 593	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Streets safety—for ad- vanced grades Streets first aid—carrying the injured String choir String choir Stringed instruments String choir Stringed instruments String choir Structural engineering. See Building, Iron and steel Struggle of French America Study of a mountain glacier 551.3
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Span supreme 973.1 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spark-plugs Along the firing line, or The story of a spark plug 629.2	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1 Making an all-steel automobile body Pig iron to steel 669.1 Story of steel 669.1 Steory of steel 669.1 Steel construction Builders 690 Empires of steel 725 Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison Stenography. See Shorthand Stentor Microscopic animal life 793 Protoplasm—the beginning of life 593	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets safety—for ad- vanced grades Streets safety—for ad- vanced grades Streets safety—for ad- vanced grades Stretchers First aid—carrying the injured String choir String choir String choir Stringed instruments String choir Stringed instruments String choir Structural engineering. See Building, Iron and steel Struggle of French and English for North America Study of a mountain glacier 551.3 Study of infant behavior 136.
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spark-plugs Along the firing line, or The story of a spark plug 598.2 Sparrow hawk 598.2 Sparrow hawk 598.2 Spectacular experiments in crystallization 540 Specters. See Ghosts	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1 Making an all-steel automobile body Pig iron to steel 669.1 Story of steel 669.1 Stery of steel 669.1 Steel construction Builders 690 Empires of steel 725 Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison Stenography. See Shorthand Stentor Microscopic animal life 993 Stephen Foster. Fitzpatrics 992 Stephen Foster. Fitzpatrics 92	Johann Strauss Street safety—for advanced grades. See note under Street safety—for primary grades. See note under Street safety—for ad- vanced grades 614. Streets Street safety—for ad- vanced grades 614. Streets safety—for ad- vanced grades 614. Streethers First aid—carrying the injured 614. Stringe choir Stringe dinstruments String choir Stringed instruments String choir Structural engineering. See Building, Iron and steel Struggle of French and English for North America 973. Study of a mountain glacter 551.3 Study of infant behavior 136. Study of Niagara 917.4 Study of shore features—
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spark-plugs Along the firing line, or The story of a spark plug 629.2 Sparrow hawk 598.2 Spectacular experiments in crystallization 540 Specters. See Ghosts Spectre F	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1 Making an all-steel automobile body 629.2 Pig iron to steel 669.1 Story of steel 669.1 Steel construction Builders 690 Empires of steel 725 Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison 725 Steintor Microscopic animal life Protoplasm—the beginning of life Stephen Foster. Fitzpatrick 92 Stephen Foster. Fitzpatrick 92 Stephenson, Nathaniel Wright	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Streets safety—for ad- vanced grades Streets first aid—carrying the injured String choir String choir Stringed instruments String choir Structural engineering. See Building, Iron and steel Struggle of French America Study of a mountain glacier 551.3 Study of infant behavior 136. Study of Niagara Study of shore features— bold shore
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spank-piugs Along the firing line, or The story of a spark plug 629.2 Sparrow hawk 598.2 Spectacular experiments in crystallization 540 Specters. See Ghosts Spectre F Speech, Electrical transmission of 621.38	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Leat treatment of steel Making an all-steel automobile body Pig iron to steel Stey of steel Stey of steel Ge9.1 Stey of steel Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison Stenography. See Shorthand Stentor Microscopic animal life Protoplasm—the beginning of life Stephen Foster. Fitzpatrick Stephen Foster. Gutlohn 92 Stephenson, Nathaniel Wright Day of the confederacy. See Dixle 93 93 973,7	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades String choir
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spark-piugs Along the firing line, or The story of a spark plug 629.2 Sparrow hawk 598.2 Spectacular experiments in crystallization 540 Specters. See Ghosts Spectre F Speech, Electrical transmission of 621.38 Speeding up our deep sea.	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Leat treatment of steel Carrying american products to foreign lands Heat treatment of steel Making an all-steel automobile body Pig iron to steel Steel construction Builders Steel construction Builders Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison Stenography. See Shorthand Stentor Microscopic animal life Protoplasm—the beginning of life Stephen Foster. Fitzpatrick Stephen Foster. Fitzpatrick Stephenson, Nathaniel Wright Day of the confederacy. See Dixle Stethoscope Family album 621.38	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades Streets safety—for ad- vanced grades Streets safety—for ad- vanced grades Streets safety—for ad- vanced grades String choir String choir String choir String choir String choir Stringed instruments String choir Structural engineering. See Building, Iron and steel Struggle of French and English for North America Study of amountain glacier 551.3 Study of infant behavior 136. Study of shore features— bold shore Study of shore features— low shore Stull, De Forest. See World
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spark-piugs Along the firing line, or The story of a spark plug 629.2 Sparrow hawk 598.2 Spectacular experiments in crystallization 540 Specters. See Ghosts Spectre F Speech, Electrical transmission of 621.38 Speeding up our deep sea cables 621.38 Sphinx	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel Making an all-steel automobile body Pig iron to steel Steel construction Builders Empires of steel Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison Steinmetz, Charles Proteus. Thomas A. Edison Steinmetz, Charles Proteus. Thomas A. Edison Stenography. See Shorthand Stentor Microscopic animal life Protoplasm—the beginning of life Stephen Foster. Fitzpatrick Stephen Foster. Gutlohn Stephenson, Nathaniel Wright Day of the confederacy. See Dixle Stethoscope Family album Stickleback Crayfish-stickleback 597	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets Street safety—for ad- vanced grades String choir
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spanish dancer. See Models in motion 741 Spark-plugs 629.2 Sparrow hawk 598.2 Spectacular experiments in crystallization 540 Specters. See Ghosts Spectre F Speech, Electrical transmission of 621.38 Spelling up our deep sea cables 621.38 Sphinx Calling on the sphinx 916.2 Temples and tombs of an-	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel Making an all-steel automobile body Pig iron to steel Steel construction Builders Empires of steel Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison Steinmetz, Charles Proteus. Thomas A. Edison Steinmetz, Charles Proteus. Thomas A. Edison Stenography. See Shorthand Stentor Microscopic animal life Protoplasm—the beginning of life Stephen Foster. Fitzpatrick Stephen Foster. Gutlohn Stephenson, Nathaniel Wright Day of the confederacy. See Dixle Stethoscope Family album Stickleback Crayfish-stickleback 597	Johann Strauss Street safety—for advanced grades. See note under Street safety—for primary grades. See note under Street safety—for ad- vanced grades 614. Streets Street safety—for ad- vanced grades 614. Streets safety—for ad- vanced grades 614. Streets first aid—carrying the injured 614. String choir 78. String
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spark-piugs Along the firing line, or The story of a spark plug 629.2 Sparrow hawk 598.2 Spectacular experiments in crystallization 540 Specters. See Ghosts Spectre F Speech, Electrical transmission of 621.38 Speeding up our deep sea cables 621.38 Sphinx Calling on the sphinx 916.2 Temples and tombs of ancient Egypt 932	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Ucts to foreign lands Heat treatment of steel Making an all-steel automobile body Pig iron to steel Stery of steel Steel construction Builders General Fabrication and erection of the Bank of Manhattan building Steinmetz, Charles Proteus. Thomas A. Edison Stenography. See Shorthand Stentor Microscopic animal life Protoplasm—the beginning of life Stephen Foster. Fitzpatrick Stephen Foster. Gutlohn Stephen Foster. Gutlohn Stephen Foster. Gutlohn Stethoscope Family album Stickleback Crayfish-stickleback Crayfish-stickleback Sydnay Wading birds Sagnay Sagnay Steyles Stephen Foster. Stickleback Stickleback Crayfish-stickleback Sydnay Sydn	Johann Strauss Street safety—for advanced grades. See note under Street safety—for primary grades. See note under Street safety—for ad- vanced grades 614. Streets Street safety—for ad- vanced grades 614. Streets Street safety—for ad- vanced grades 614. Streets Street safety—for ad- vanced grades 614. Stretchers First aid—carrying the injured 614. String choir 78.
Southern states 917.5 Souvenirs of Singapore 915.95 Soy-bean Four men and the soy 633.3 Spain Through oil lands of Europe and Africa—Germany, France, Spain, Morocco, and Algeria 665.5 See also Granada Span supreme 624 Span supreme 973.1 Spanish conquerors. Richman, I. B. See Columbus 973.1 Spanish dancer. See Models in motion 741 Spanish dancer. See Models in motion 741 Spark-plugs Along the firing line, or The story of a spark plug 629.2 Sparrow hawk 598.2 Spectacular experiments in crystallization 540 Specters. See Ghosts Spectre F Speech, Electrical transmission of 621.38 Spelling up our deep sea cables 621.38 Sphinx Calling on the sphinx 916.2 Temples and tombs of an-	Ocean liners Steamships. See Steamboats Stebbins, Cyril Adelbert. See Citizenship series Steel Carrying American products to foreign lands Heat treatment of steel 669.1 Making an all-steel automobile body 629.2 Pig iron to steel 669.1 Story of steel 669.1 Stering of steel 669.1 Stering of steel 725 Fabrication and erection of the Bank of Manhattan building 725 Fabrication and erection of the Bank of Manhattan building 725 Steinmetz, Charles Proteus. Thomas A. Edison 92 Steinmetz, Charles Proteus. Thomas A. Edison 92 Stephen Foster. Fitzpatrick 92 Stephen Foster. Fitzpatrick 92 Stephen Foster. Fitzpatrick 92 Stephen Foster. Fitzpatrick 92 Stephen Foster. Stellohn 92 Stephenson, Nathaniel Wright Day of the confederacy. See Dixle 973.7 Stethoscope Family album 621.38 Stickleback Crayfish-stickleback 597 Day at the river 597 Stilts (Birds)	Johann Strauss Street safety—for advanced grades Street safety—for primary grades. See note under Street safety—for ad- vanced grades Streets for ad- vanced grades Streets Street safety—for ad- vanced grades Streets String choir Stringed instruments String choir Stringed instruments String choir Stringed instruments String choir Structural engineering. See Building, Iron and steel Struggle of French America Study of a mountain glacier 551.3 Study of infant behavior 136. Study of Niagara 917.4 Study of shore features— bold shore 10w shore Study of shore features— 10w shore 10w shore 10x shore 10x shore 10x shore 10x shore 10x shore 1

Sugar		Tommy Tucker's tooth 617.6	Tigers
Beet and cane sugar	664.1	X-ray on teeth 617.6	Animals of the cat tribe 599
Farmers of Formosa From the Bahamas	630.952	relegiabli	Cat animals 599
Jamaica Banamas	917.29	Communication 621.38 Telephone	Tigers of the North 799.1
Hawaiian islands	919.69	Communication 621 38	Tigers of the North Tilden playing tennis. Models in motion 799.1 741
Hawailan islands Island of sugar Philippine islands	664.1	Communication 621.38 Family album 621.38 Induced currents 621.31	Tile laying
Philippine islands	919.14	Induced currents 621.31	Builders 690
See also Beets a		Inside story of your tele-	Time 681
beet sugar		pnone 621.385	Time-lapse studies of plant
Sugar beets. See Beets a	and	Magic of communication	growth 581
beet sugar		G21.385	Tin Story of story
Sugar trail	664.1	Telephone, Wireless. See Radio Telephone lines	Story of steel 669.1 Tin 669.6
Sulphur	553	Cedar camps in cloudland 674	Tiny water animals 591.92
Sulphur Sumatra		Far western cedar trails 674	Tires
Battak of Sumatra	919.21	Land of the white cedar 674	Conquering the desert 677.2
Conquering the jungle	678	New voice highways 621.385	Rubber 678
Conquering the jungle Dutch East Indies	919.2	Pillars of the sky 674	Story of the tire 678
Island of yesterday Malays of Sumatra Romance of rubber Rubber	919.21	Telescope	Titmice
Malays of Sumatra	919.21	Communing with the heavens 520 Eyes of science 535.8 Optical instruments 535.8	We are seven 598.2
Romance of rupper	678	Eves of science 535.8	Down at our pond 597.8
Rubber Summer	0/0	Optical instruments 535.8	
Four seasons	570	Sky 520	manders 597.8 Rentiles 500.1
Summer playing field act	iv-	Tell, William (as subject)	Reptiles 598.1
ities	796	william ten 949.4	Toads 597.8
Sun		Temperature	Toadstools. See Mushrooms
Sunset phenomena	520	Atmospheric gradation 551.9 Temples and tombs of an-	Tobacco
Sunset phenomena	917.1	cient Egypt 932	From the Bahamas to Ja- maica 917.29
When day is done Survivals of primitive ho	917.1	Ten nounds to the bushel 622 1	maica 917.29 Tolhurst, Louis
life	970.1	Ten pounds to the bushel 633.1 Tenderfoot trails 917.11	Cocoon to butterfly 595.78
	See	Tennessee valley authority	Life cycle of the ant-lion
Bridges		Tennessee valley authority Tale of two rivers 331.8	595.7
Sweden		rennis	Our ant gang 595,796
Children of Scandinavia		_ Models in motion 741	Tomatoes
Sweden	914.85	Tennyson, Alfred Tennyson,	White flies and tomatoes
Swimming Crystal shampions	707.2	1st baron	Tommy Tuelter's teeth 632.7
Crystal champions Swine	191.2	The brook. See By the side	Tommy Tucker's tooth 617.6 613.2
Dohind the brooks	ast	of the road 914.2 Tent-caterpillar	Top o' the world 917.123
plate	636.4	Planting and care of trees 715	Tornadoes
plate How to grow hogs Switzerland Heidi of the Alps	636.4	Termites	Birth of a tornado 551.5 Toronto, Canada
Switzerland		Battle of the centuries 595.796	Toronto, Canada
		Termites 595.73	Canada's queen city 917.13 Torrence, Ernest (as actor) King of kings 232
People who live in	573.4	Terns	King of kings (as actor)
mountains Village life in Switze		Birds of the seacoast 598.2 Fleet wings 598.2	Tortoises 232
land	914.94	Testing seeds in soil 631.5	Tontoine
		Tests, Mental. See Mental	Toschi, Leo (as actor)
History William Tell		tests	1 Ioni clay to profize /39
William Tell	949.4	Textbooks	Tournaments
		Books—from manuscript to classroom 655	In the days of chivalry 942.03
		to classroom 655	When guide meets guide 796.5
Т		Thirty-six weeks behavior	Town planning. See City planning
_		day 136.7 This is America 973.9 This was England 630.942 This was England 630.942	Towns. See Cities and
T. R. himself	92	This was England 630 942	towns
Tableware	738		Trade. See Business; Com-
Tadpoles. See Frogs; Toa	ads	Thistledown 583 Thistledown 583 Thomas A. Edison 92 Thomas Jefferson 92	merce
latt, Lorado (as subject)	Thistledown 583	Traffic. See Communication
Lorado Taft—sculptor	92	Thomas A. Edison 92	and traffic
Tailoring	- 607	Thomas Jefferson 92	Traffic regulations Ask Daddy 614.8 Trail mates 917.98
Men's clothing industry Tale of two bulls Tale of two rivers	y 636.2	Thoroughfares. See Roads; Streets	Ask Daddy 614.8
Tale of two rivers	331.8	Three jungle giants 599	Trail mates 917.98
Talkies. See Moving p.	ic-	Thrift 339.4	Trained nurses. See Nurses
tures. Talking		Through oil lands of Eu-	and nursing
Talking movies. See Mo ing pictures, Talking	ov-	rope and Africa—Ger-	Training and practical hints
ing pictures, Talking		many, France, Spain, Morocco, and Algeria 665.5	796.33
Talking pictures. See Moing pictures, Talking)V-	Morocco, and Algeria 665.5	Trans-Mississippi trails 973.6
Tame wild life of Yosem	ite	Through oil lands of Eu-	Transformers, Electric. See
Tante who hie of rosem	591.9	rope and Africa—Italy, Hungary, the Danube,	Electric transformers
Taming the Taiga	915.7	and Rumania 665.5	Transportation
Tapestries and how th		Through oil lands of Eu-	Development of transpor-
are made	677.6	rope and Africa—Po-	tation 380
Tapestries and how th	017	land, Greece, and Egypt	Farther, faster and safer 380
Tapestries and how th	677.6	665.5	King of the rails 385
Tapioca	0,,,0	Through the Norway of	Land transportation 380
Across the seven seas	664.2	America 917.11	Transportation. Bray 380 Transportation. DeVry 380
Теа		Through the oil fields of	Transportation. DeVry 380 Transportation. Bur. of
	630.952	Mexico 665.5	mines 385
Teaching beginners how	01	Tides	Wheels of progress 380
typewrite	652 37 2. 4	Tides and the moon 520	Wings of a century 380
Teaching of reading	3/2.4	Tides and the moon 520	Transportation on the Great
Teeth	617.6	Tles, Railroad. See Rail-	Lakes 387
Bobby's bad molar Care of the teeth	617.6	roads—Ties	Trapping tuna 639
Clara cleans her teeth	617.6	Ties of steel 625	Tree planting
How teeth grow	617.6	Tiger lily, vesper iris,	Planting and care of trees 715
Tooth	617 6	envoyting boom 500	Defendatation 604 6

Trees Life 581	Forests and men 634.909 We can take it 634.909	History, Economic See U.S.—Economic
Planting and care of trees 715 Trinidad From Haiti to Trinidad	United States. Coast Guard International ice patrol 614.8	conditions Immigration and emigration
Trip to the farm F	Safety at sea 614.8 United States, Federal hous-	Immigration 325 Immigration to the Uni-
Tropic garden 580 Tropical plants	ing administration Courage of Kay 640	ted States 325
Trout	United States. Navy Fleet ho 359	Natural resources See U.S.—Economic
Day at the river 597	Gray armada 359 Jack wins his wings 629.1	conditions
Clean herds—and hearts 619 Consequences 616.24	Sky fleets of the navy 629.1 Sports of sailormen 359	Politics and government Citizen and his govern-
Tuberculosis and how it may be avoided 616.24 Tuberculosis and how it	Sprinkles of salt 359 Submarine service 623.825	ment 353
may be avoided \$10.24	United States. Women's bu- reau	Social conditions Citizen and his govern-
Tuna fish Trapping tuna 639 Tunnels	Story of the Women's bu- reau 331.4	ment 353 Tale of two rivers 331.8
Conquest of the Cascades 625 Turbine with the solid rotor	United States	Uniting the colonies. See George Washington, his
Turkey 621.1	Commerce Carrying American prod-	life and times 92 Universe Birth of the earth 520
Children of the Balkans 914.96	ucts to foreign lands 382 Declaration of independence	Birth of the earth 520 Earth and worlds beyond 520 University of Chicago physi-
Turkey business 636.59 Turkeys Came birds 598.2	Declaration of independence 973.3	cal science series Atmospheric gradation 551.9
Turkey business 636.59	Description and travel	Electrostatics 537 Energy and its trans-
Turp and Tine, Doings of 665.3	Central plains 917.7 Flying across America in	formation 531.2 Fundamentals of acoustics 534
Turpentine Doings of Turp and Tine 665.3 Turtles	16 hours with United air lines 629.1	Geological work of ice 551.31 Ground water 551.49
Down at our pond 597.8 Reptiles 598.1	Middle Atlantic states 917.4	Molecular theory of mat-
'Twas the night before Christmas	Economic conditions Interdependence 301	Mountain building 551.4 Oxidation and reduction 540 Sound waves and their
Twenty-four dollar island 917.471	Government	sources 534 Volcanoes in action 551.2
Typewriting Teaching beginners how to typewrite 652	See U.S.—Politics and government	Work of rivers 551.48
to typewrite Typography. See Printing	History Hats off 929.9	Unwelcome guest. See note under Christ confounds His critics, class 232
TT	See also America—	Up to date home canning methods. See Capping
U	See also America— Discovery and explora- tion; Lewis and Clark	nature's finest 664.8 Uruguay
U.S.S. Akron 629.1	See also America— Discovery and explora- tion; Lewis and Clark expedition	nature's finest 654.8 Uruguay Rollin' down to Rio Under the southern cross 918
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383	See also America— Discovery and exploration; Lewis and Clark expedition History—Colonial period English settlements in	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Under the southern cross 918 Utah Civilian conservation corps at work—Utah and
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross 918 Underground water. Work	See also America— Discovery and explora- tion; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Under the southern cross 918 Utah
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross 918 Underground water, Work of 551.48 Underhill, Duncan	See also America— Discovery and explora- tion; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Under the southern cross 918 Utah Civilian conservation corps at work—Utah and
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross 918 Underground water, Work of 551.48 Underhill, Duncan Benares 915.4	See also America— Discovery and exploration; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Under the southern cross 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination
U.S.S. Akron Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross Underground water, Work of 551.48 Underhill, Duncan Benares 915.4 Under-sea life 591.92 United States, Agriculture,	See also America—Discovery and exploration: Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North Amer-	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Under the southern cross 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease 559.95
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross 918 Underground water, Work of 551.48 Underhill, Duncan Benares 915.4 Under-sea life 591.92 United States. Agriculture, Department of Home demonstration work —what it is and does 640	See also America— Discovery and explora- tion; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and	nature's finest 654.8 Uruguay Rollin' down to Rio Under the southern cross 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease Valley of a hundred peaks 917.123
U.S.S. Akron Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross Underground water, Work of 551.48 Underhill, Duncan Benares 915.4 Under-sea life 591.92 United States. Agriculture, Department of Home demonstration work —what it is and does Home demonstration work in the western states 640	See also America— Discovery and explora- tion; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America Usa 973.2 Wolfe and Montcalm 973.2 History—Revolution	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Under the southern cross 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease 0411ey of a hundred peaks Valves Valves, their manufacture
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross 918 Underground water, Work of 551.48 Underhill, Duncan Benares 915.4 Under-sea life 591.92 United States. Agriculture, Department of Home demonstration work —what it is and does Home demonstration work in the western states 640 Honor of the little purple stamp 664.9	See also America—Discovery and exploration: Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Utah Civilian conservation corps at work—Utah southern Idaho 634.909 V Vaccination Armies of health and disease Valley of a hundred peaks 917.123 Valves Valves, their manufacture
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross 918 Underground water, Work of 551.48 Underhill, Duncan Benares 915.4 Under-sea life 591.92 United States. Agriculture, Department of Home demonstration work —what it is and does 640 Home demonstration work in the western states 640 Honor of the little purple stamp 664.9 United States. Civilian conservation corps	See also America—Discovery and exploration: Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American 978	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease Valley of a hundred peaks Valves, their manufacture and uses Valves, their manufacture 621.8 Valves, their manufacture and uses 621.8 Valves, their manufacture and uses 621.8 Valves, their manufacture and uses 621.8
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross 918 Underground water, Work of 551.48 Underhill, Duncan Benares 915.4 Under-sea life 591.92 United States. Agriculture, Department of Home demonstration work in the western states 640 Homo demonstration work in the western states 640 Homor of the little purple stamp 664.9 United States. Civilian conservation corps CCC accomplishments in Pennsylvania 634.909	See also America— Discovery and exploration; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Eronter woman 978	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Urah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease 917.123 Valves Valves, their manufacture and uses Valves, their manufacture and uses Valves, their manufacture and uses 621.8
U.S.S. Akron 629.1 Udes Taming the Taiga 915.7 Unburned woodlands 799 Uncle Sam's stamp factory 383 Under the southern cross 918 Underground water, Work of 551.48 Underhill, Duncan Benares 915.4 Under-sea life 591.92 United States. Agriculture, Department of Home demonstration work — what it is and does 640 Home demonstration work in the western states 640 Honor of the little purple stamp 664.9 United States. Civilian conservation corps CCC accomplishments in Pennsylvania 634.909 CCC fights erosion 551.3 Civilian conservation corps	See also America—Discovery and exploration; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American Revolution 973.3 Yorktown 973.3 History—1783-1809	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease 589.95 Valley of a hundred peaks 917.123 Valves Valves, their manufacture and uses 621.8 Valves, their manufacture and uses 621.8 Valves, their manufacture and uses 621.8 Vancouver, Canada Canada's Pacific gateway Variation (Biology)
U.S.S. Akron Udes Taming the Taiga Taming the Taiga Unburned woodlands Ty9 Uncle Sam's stamp factory 383 Under the southern cross Underground water, Work of Underhill, Duncan Benares Under-sea life United States. Agriculture, Department of Home demonstration work —what it is and does 640 Home demonstration work in the western states Honor of the little purple stamp G64.9 United States. Civilian con- servation corps CCC accomplishments in Pennsylvania G34.909 CCC fights erosion Civilian conservation corps at work—Arizona G34.909 Civilian conservation corps at work—Colorado, Wy-	See also America—Discovery and exploration; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American Revolution 973.3 Yorktown 973.3 History—1783-1809 Breaking through the Appalachians 973.4	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease 539.95 Valley of a hundred peaks Valves Valves, their manufacture and uses 621.8 Varietion (Biology) Nature's armour 591.57 Vasantasena F
U.S.S. Akron Udes Taming the Taiga Taming the Taiga Unburned woodlands Uncle Sam's stamp factory 383 Under the southern cross Underground water, Work of Underhill, Duncan Benares Benares United States. Agriculture, Department of Home demonstration work in the western states Honor of the little purple stamp United States. Civilian conservation corps CCC accomplishments in Pennsylvania CCC fights erosion Civilian conservation corps at work—Arizona Gid-909 Civilian conservation corps at work—Colorado, Wyoming, and South bota 634.909	See also America— Discovery and exploration; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American Revolution 973.3 Yorktown 973.3 History—1783-1809 Breaking through the Appalachians 973.4 Louisiana purchase and Lewis and Clark expedition 973.4	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease Valley of a hundred peaks Valves, their manufacture and uses 621.8 Valves, their gateway Variation (Biology) Nature's armour 591.57
U.S.S. Akron Udes Taming the Taiga Taming the Taiga Taming the Taiga Under Under woodlands Typ Uncle Sam's stamp factory Under the southern cross Underground water, Work of Total Underfill, Duncan Benares Under-sea life Under-sea life Under-sea life Under-sea life United States. Agriculture, Department of Home demonstration work —what it is and does Home demonstration work in the western states Honor of the little purple stamp Total United States. Civilian conservation corps CCC accomplishments In Pennsylvania Civilian conservation corps at work—Arizona Civilian conservation corps at work—Colorado, wooming, and South Dakota Civilian conservation corps at work—Montana Civilian corps at work—Montana Corps at work—Montana	See also America—Discovery and exploration; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American Revolution 973.3 Yorktown 973.3 History—1783-1809 Breaking through the Appalachians 973.4 Louisiana purchase and Lewis and Clark expedition 973.4 Settling the Ohio valley 973.4	nature's finest 654.8 Uruguay Rollin' down to Rio 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease Valley of a hundred peaks 917.123 Valves Valves, their manufacture and uses 621.8 Valves, their manufacture and uses 72.1 Valves, their manufacture and uses 621.8 Valves, their manufacture fall (Biology) Nature's armour 591.51 Variation (Biology) Nature's armour 591.57 Variation (Biology) Nature's armour 591.57 Vasantasena 75.6001 industries 371.7 Vegetable physiology. See
U.S.S. Akron Udes Taming the Taiga Taming the Value Taming the Taiga Under Under woodlands Top Uncle Sam's stamp factory Under the southern cross Underground water, From Vork Of Underhill, Duncan Benares Under-sea life United States. Agriculture, Department of Home demonstration work —what it is and does Home demonstration work in the western states Honor of the little purple stamp CCC accomplishments in Pennsylvania CCC fights erosion Civilian conservation corps at work—Arizona Civilian conservation corps at work—Colorado, wy-oming, and South Acta Civilian conservation corps at work—Montana Acta Od4.909 Civilian conservation corps at work—Montana Acta Od4.909 Civilian conservation corps at work—Montana Acta Od4.909 Civilian conservation corps	See also America—Discovery and exploration: Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American Revolution 973.3 Yorktown 973.3 History—1783-1809 Breaking through the Appalachians 973.4 Louisiana purchase and Lewis and Clark expedition 973.4 Settling the Ohio valley 973.4 History—1815-1861 Pony express	nature's finest 054.8 Uruguay Rollin' down to Rio 918 Urah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease 589.95 Valley of a hundred peaks 917.123 Valves Valves, their manufacture and uses 621.8 Vancouver, Canada Canada's Pacific gateway Variation (Biology) Nature's armour 591.57 Vagetable gardening Market gardening School industries 717.7 Vegetables 625 Rodof Goods—fruits and
U.S.S. Akron Udes Taming the Taiga Taming the Taiga Unburned woodlands Typ Uncle Sam's stamp factory Under the southern cross Under the southern cross Underground water, Of S51.48 Underhill, Duncan Benares Under-sea life United States. Agriculture, Department of Home demonstration work —what it is and does Home demonstration work in the western states Honor of the little purple stamp G64.9 United States. Civilian conservation corps CCC accomplishments in Pennsylvania CCC fights erosion Civilian conservation corps at work—Colorado, Wyoming, and South Acta S4.909 Civilian conservation corps at work—Montana Idaho Civilian conservation corps at work—montana corps	See also America—Discovery and exploration; Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American Revolution 973.3 History—1783-1809 Breaking through the Appalachians 1973.4 Louisiana purchase and Lewis and Clark expedition 973.4 Settling the Ohio valley 973.4 History—1815-1861 Pony express Trans-Mississippi trails 973.6	nature's finest Uruguay Rollin' down to Rio Under the southern cross 918 Utah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease Valley of a hundred peaks Valves Valves, their manufacture and uses Valves, their manufacture and uses Valves, their manufacture and uses Varouver, Canada Canada's Pacific gateway Variation (Biology) Nature's armour Vasantasena Vegetable gardening Market gardening Market gardening School industries Vegetable physiology Vegetables Good foods—fruits Vegetables Good foods—fruits Vands Good 13.2
U.S.S. Akron Udes Taming the Taiga Unburned woodlands Uncle Sam's stamp factory 383 Under the southern cross Under the southern cross Underground water, Work of Underhill, Duncan Benares United States. Agriculture, Department of Home demonstration work —what it is and does Home demonstration work in the western states Honor of the little purple stamp CCC accomplishments in Pennsylvania Civilian conservation corps at work—Arizona Civilian conservation corps at work—Colorado, Wyoming, and South kota Civilian conservation corps at work—Montana Idaho Civilian conservation corps at work—Montana Adaho Civilian conservation corps at work—Montana Adaho Civilian conservation corps at work—Montana Adaho Civilian conservation corps at work—mosquito Con- trol G34.909 Civilian conservation corps at work—regon and Washington G34.909 G34.909 G34.909 G34.909 G34.909	See also America—Discovery and exploration: Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American Revolution 973.3 Yorktown 973.3 History—1783-1809 Breaking through the Appalachians 973.4 Louisiana purchase and Lewis and Clark expedition 973.4 Settling the Ohio valley 973.4 History—1815-1861 Pony express	nature's finest 054.8 Uruguay Rollin' down to Rio 918 Urah Civilian conservation corps at work—Utah and 634.909 V Vaccination Armies of health and disease Valley of a hundred peaks Valves, their manufacture and uses Valves, their manufacture 221.8 Valves, their manufacture 321.8 Valves, their manufacture 32
U.S.S. Akron Udes Taming the Taiga Taming the Taiga Unburned woodlands Top Uncle Sam's stamp factory 383 Under the southern cross Underground water, Work of Solitality Underhill, Duncan Benares Under-sea life United States. Agriculture, Department of Home demonstration work —what it is and does 640 Home demonstration work in the western states Honor of the little purple stamp Golitalian conservation corps CCC accomplishments in Pennsylvania CCC fights erosion Civilian conservation corps at work—Arizona Civilian conservation corps at work—Colorado, Wy- oming, and South Da- kota Civilian conservation corps at work—Montana Idaho Civilian conservation corps at work—Montana Civilian conservation corps at work—Montana Idaho Civilian conservation corps at work—mosquito con- trol Civilian conservation corps at work—mosquito con- trol Civilian conservation corps at work—Torgon and	See also America—Discovery and exploration: Lewis and Clark expedition History—Colonial period English settlements in North America 973.1 Eve of the revolution 973.2 Peter Stuyvesant 973.2 History—French and Indian war, 1755-1763 Gateway to the West 973.8 Struggle of French and English for North America 973.2 Wolfe and Montcalm 973.2 Wolfe and Montcalm 973.2 History—Revolution Declaration of independence 973.3 Frontier woman 978 War of the American Revolution 973.3 Yorktown 973.3 History—1783-1809 Breaking through the Appalachians 973.4 Louisiana purchase and Lewis and Clark expedition 973.4 Settling the Ohio valley 973.4 History—1815-1861 Pony express Trans-Mississippi trails 973.6 History—Civil war	nature's finest 054.8 Uruguay Rollin' down to Rio 918 Urah Civilian conservation corps at work—Utah and southern Idaho 634.909 V Vaccination Armies of health and disease 589.95 Valley of a hundred peaks 917.123 Valves Valves, their manufacture and uses 621.8 Valves of the heart in action (12.1 Valves, their manufacture and uses 621.8 Valves, their manufacture and uses 621.8 Varcouver, Canada Canada's Pacific gateway Variation (Biology) Nature's armour 917.11 Vasantasena Vegetable gardening Market gardening Mar

	144-1	Maker meure
Veins Circulatory control 612.1	Wales By the side of the road 914.2	Electric power in the
Venereal diseases	Walking, From creeping to	southern Appalachians
Venereal diseases 613.9	Walking leaf	Story of power 621.312
Venice 914.5	Animal camouflage 591.57	Water power. Bur. of
Verdi, Giuseppe (as subject)	Walrus Seals and walruses 599	mines 621.312 Water power. Eastman
Giuseppe Verdi 92 Vermont's maple industry 664.1	Wanderers of the Arabian	621.312
Versailles, France	desert 915.3 War	Water purification. See Water—Purification
Great waters of Versailles	Why? 172.4	Water supply
Victoria, Canada	War of secession (U.S.). See U.S.—History—Civil	Drinking health 613
City of sunshine 917.11 Vienna	war	Forest and water 628.1 Purifying water 628.1
Glimpses of Vienna 914.36	War of the American revo- lution. See U.S.—His-	Water 628.1
Viking 639 Village life in Switzerland	tory—Revolution	Water supply, Rural Turn on the water! 628.7
914.94	War of the American Revo-	Waterfalls
Vincennes 973.3 Virginia	lution 973.3 Warblers	Falling waters 917.1 Waterworks. See Water
Channel bass fishing off	Home from the South 598.2	supply
Virginia 799.1 Chesapeake bay 917.52	Warner, H. B. (as actor) King of kings 232	Waves Shore deposits 551.36
Historic scenes along the	Washington, George (as	Study of shore features—
Mount Vernon memorial highway 917.55	Alexander Hamilton 92	bold shore 551.36 Study of shore features—
Virginia—the Old Domin-	Gateway to the West 973.8	lows whoma FE4.00
ion 917.35	Gateway to the West 973.8 George Washington 92 George Washington, his	Work of waves 551.36 We are seven 598.2
Virginia—the Old Dominion 917.55	life and times 92 Washington, D.C.	We are seven 598.2 We can take it 634.909
Vision. See Eye; Sight	Washington, D.C. Carry on 917.53	Weapons. See Firearms
Visit to Mesa Verde na- tional park 571	Carry on 917.53 Historic scenes along the	Wearing away of the land 551.3 Weather forecasting
Vigit to the armor calleries 399	Mount Vernon memorial	Back of the weather fore-
Vitaphone. See Moving pic- tures, Talking	highway 917.55 Washington—the capital	cast 551.5 Exploring the upper air 551.5
Vocation, Undice of See	city 917.53	Our earth 551
Profession, Choice of Vocational guidance. See	Washington (state) Civilian conservation corps	Watching the weather above 551.5
Profession, Choice of	at work—Oregon and	Weather forecasting 551.5
Profession, Choice of Vocational guidance series, by Fred C. Smith	Washington 634.909 Washington and his col-	Weather forecasting 551.5 Weaving
Artist 707	Washington and his col- leagues, Ford, H. J. See	Art of spinning and weav-
Doctor 610 Engineer 620	Alexander Hamilton 92 Washington and his com-	ing 677
Executive 658	rades in arms. Wrong,	Arts and crafts 970.1 Tapestries and how they
Farmer 630 Industrial worker 331.8	G. M. See Yorktown 973.3 Washington — the capital	are made 677.6
Salesman 658	city 917.53	Webster, Daniel (as sub-
Skilled mechanic 621 Journalist 070	Wasps Killers 595.7	Daniel Webster 92
Voice	Wasps 595.79	Weddings. See Marriage customs and rites
Human voice 612.78 Volcanoes	Waste, Disposal of See Sewage disposal	Wee Scotch piper 914.1
Formation of volcanoes	Waste disposal in cities 628.3	Weissmuller, John (as sub- ject)
and geysers 551.2 Kilauea—the house of	Watches. See Clocks and	Crystal champions 797.2
everlasting fire 551.2	watches	The West
Kilauea volcano, Hawaii 551.2	Watching the weather above 551.5	Great plains 917.8 Rocky mountains 917.8
Volcanoes. Films of com-	Water	She's wild 917.8
merce 551.2 Volcanoes in action 551.2	Beyond the microscope 540 Drinking health 613	History
See also Kilauea	Good foods—a drink of	Trans-Mississippi trails 973.6
Volcanoes in action 551.2	water 613.2 Ground water 551.49	West Indies From Haiti to Trinidad 917.29
Volendam, Going to 914.92	water 020.1	From the Bahamas to Ja-
Volta, Alessandro Chemical effects of elec-	Water cycle 551.5 Work of running water 551.48	maica 917.29 Isles of romance 917.29
tricity 621.35	Work of the atmosphere 551.3	Isles of romance 917.29 Isles of sunshine 917.29
Story of a storage battery 621.35	Work of underground water 551.49	See also Antilles, Les-
Vorticella Amoeba 593	Purification	ser; Bahamas; Cuba; Haiti; Jamaica; Trini-
Microscopic animal life 593	Purifying water 628.1	dad
Vultures	Water beetles	What causes earthquakes 551.2 Wheat
Birds of prey. Eastman 598.2 Birds of prey. Films of	Pond insects 591.92	America's granary 633.1
commerce 598.2	Water birds	Food shot from guns 633.1
Pirates of the sky 598.2	Birds of Bonaventure 598.2 Birds of the seacoast 598.2	Our daily bread 633.1
727	Birds rare and fantastic 598.2	Wheat or weeds? 633.1
W	Fleet wings 598.2 Game birds 598.2	Wheat or weeds? 633.1
Wading birds 598.2	Home of the birds 598.2	Wheat or weeds? 633.1 Wheels of progress 380 When day is done 917.1
Wadsworth, Mason	Nomads of the ocean 598.2 Nomads of the sea 598.2	when guide meets guide /95.5
Courage of Kay 640	Pirates of the sky 598.2	When the cows come home 636.2
Wages Fifty-two pay checks each	Wading birds 598.2 Water cycle 551.5	When the white man came—and after 970.1
year 331.2	Water cycle 551.5 Water fowl. See Water	When winter comes 796.9
Wagner, Richard Tannhauser. See Brass	birds	Where beauty dwells 917.123 Where nature smiles 634
choir 788	Water insects, Some 591.92	Where plants live 580

Where snowtlme is joytlme 796.9	Wood engraving Last of the wood engrav-	Wrought iron work. See
Where the moose runs loose 599	ers 761	Ironwork Wyoming
Where winter sport is king 796.9 White flies and tomatoes 632.7	Wood wisdom 674 Woodbury, Charles Herbert	Clvilian conservation corps
White lead Lead 669.4	Models in motion 741 Woodchucks	at work—Colorado, Wy- oming, and South Da-
Whitney, Willis Rodney	Bre'r Rabbit and his pals 599	kota 634.90
Thomas A. Edison 92 Why? 172.4	Eastern woodchuck and its control 632.6	
Why be careless? 629.213	Furry creatures 599	x
Why moths leave home 632.7 Wild flowers. See Flowers	Woodcuts. See Wood en- graving	
Wild flowers. Eastman 583	Woodpeckers	X-ray on teeth 617.
Wild flowers. U.S. agric. 583 Wild flowers. Wild flower	Some friendly birds 592.2	X rays
preservation soc. 583 Wild fowl. See Water birds	Woods. See Forests and forestry	Revelations by X-ray 537. X-ray on teeth 617.
Wild life, Conservation of.	Woodwind choir 788	
See Game protection Wild parsnip	Wool Golden fleece 677.3	
Poppy, wild parsnip 583	Inside story of your tele-	Y
Wild West shows. See Rodeos	phone 621.385 Woolen goods 677.3	
Wildcats Adventures of Peter 599	Woolen yarn 677.3 Woolen goods 677.3	Yak Monarchs of the plains 591.
"Wildwood" a 100 percent	Woolen yarn 677.3	Yeast
mechanized mine 622.33 Willecke, Detlef (as actor)	Work and energy. See Energy and work 621.312	Living cell 59
Willecke, Detlef (as actor) William Tell 949.4	Work dogs of the North 636.7	Mold and yeast 589. Yellin, Samuel (as actor)
William Tell 949.4 Wind. See Winds	Work of rivers. Erpi 551.48 Work of rivers. Soc. for	Making of wrought iron 721.
Wind Instruments	visual educ. 551.48	Yellowstone national park
Brass choir 788 Woodwind choir 788	Work of running water 551.48 Work of the atmosphere 551.3	Animals of the Yellow- stone 591.
Winds Work of the atmosphere 5513	Work of the river 551.48	Bird and animal life in Yellowstone park 917.8
Work of the atmosphere 551.3 Work of the wind 551.37 Windt, Herbert	Work of the wind 551.37	Geysers of the Yellow-
Windt, Herbert William Tell 949.4	Work of underground water	stone 917.8 Magle Yellowstone 917.8
Wings of a century 380	551.48 Work of waves 551.36	Yellowstone national park
Wings over the Andes 918.5 Winning Independence. See	Working classes. See Labor	917.8'
George Washington, his	and laboring classes	Yoho park, British Columbia Camp fires among snow
Winter	Working for dear life 613	peaks 917.1 Yoho 917.1
Four seasons 570 Winter sports	Working with clvic organ- izations 352	Yoke of the past 63
When winter comes 796.9	Working women. See Wom-	Yorktown 973.:
Where winter sport is king 796.9	an—Employment Workingmen's dwellings.	Yosemite national park
With dog team and snow-	See Housing	Animal and bird life in Yosemite national park 591.
shoes 917.13 Winter witchery of Niagara	World. See Earth	Falling waters of Yose- mite 917.9
917.47 Wire	World geography series, by De Forest Stull	Flower life in Yosemite
Long drawn out 669.3	Modern commerce 380 People who live at the	national park 583 Let's see Yosemite 917.9
Story of steel 669.1 Wireless telephone. See	equator 573.4	Roads to wonderland 917.
Radio	People who live by the sea 573.4	Springtime miracle 583
Wisconsin dairles 637 With dog team and snow-	People who live ln a	Tame wild life of Yose- mite 591.
shoes 917.13 With gun and dog 799.2	crowded valley 573.4 People who live in the	Yosemite national park 917.9
With rod and fly 799.1	Arctic 573.4	Yosemite's new roads 917.94 Yosemite's new roads 917.94
Within the gates 677.2	People who live in the desert 573.4	Yosemite's new roads 917.94 Young, W. W.
Wizardry of wireless 621.38 Wolfe and Montcalm 973.2	People who live in the mountains 573.4	Heart of Lincoln 92
Wolfe and Montcalm 973.2 Woman	People who live on a	Young goats playing. See Models in motion 74
Dress	great plain 573.4 People who live through	models in motion 14
See Clothing and dress	industry 573.4	
Employment	World of paper 676	\boldsymbol{z}
Behind the scenes in the machine age 331.4	Wounded, First aid to. See First aid in illness and	
Story of the Women's bu-	injury	Zebus Our four-footed helpers 599
reau 331.4 Within the gates 677.2	Wrecking Builders 690	Our four-footed helpers 599 Zeppelins. See Airships
Health and hygiene	Wrens	Zirbes, Laura
Social hygiene for wom-	Development of a bird embryo 591.3	Elementary teacher as a
en 613.9 Women in Industry. See	Some friendly birds 598.2	Zoo, Animals of the 591.5
Woman—Employment	Writing World of paper 676	Zoological gardens
Women workers of Ceylon	Wrong, George Mackinnon	Animals of the zoo 591.5 Mixed bathing 591.5
915.48 Wood	Conquest of New France.	Zoology
Wood wisdom 674	See Gateway to the West 973.2; Wolfe and Montcalm 973.2	Animal life 590
See also Forests and forestry; also names of	Montcalm 973.2 Washington and his com-	Zoology, Economic Cougar hunt 599
various woods, e.g. Ma-	rades in arms. See	Our animal friends and
hogany	Yorktown 973.3	foes 598.2

Directory of Producers

This list consists of producers or authorized distributors only. Film users are cautioned to be explicit as to the width of film desired and if 35mm film is ordered especial care must be taken to designate safety or nitrate film, indicated in this catalog by the symbols "nf" and "f" respectively.

Acad. of motion picture arts & sci. Academy of motion picture arts and sciences, 7046 Hollywood Blvd, Hollyences, 7046 Hollywood Blvd, Holly-wood, Cal.
Price of this film has been reduced be-cause the negative is worn

Aetna. Aetna life insurance company, 151

Farmington Av, Hartford, Conn. brass. American brass company, Waterbury, Conn.
Will consider selling prints although not usual practice

Am. dental assn. American dental association, 212 E. Superior St, Chicago, Ill.
Am. heart assn. American heart association, inc., 50 W. 50th St, New York City

Am. inst. of steel construction. American institute of steel construction, inc., 200 Madison Av, New York City

Am. osteopathic assn. American osteo-pathic association, 430 N. Michigan Av, Chicago, Ill.

Am. social hygiene assn. American social hygiene association, inc., 50 W. 50th St, New York City

Baker. R. J. Baker, 1911 Kalakaua Av, Honolulu

Bausch & Lomb. Bausch and Lomb optical company, 635 St Paul St, Rochester, N.Y.
Will sell prints at exact cost to them-

Belding Hemingway Corticelli, 119 W. 40th St, New York City

Bell & Howell. Bell and Howell company, 1801 Larchmont Av, Chicago, Ill.

Borden. Borden's farm products company, inc., 110 Hudson St, New York City

Boulder dam. Boulder dam service bureau, Boulder theater building, Boulder City, Nevada

y. Bray pictures corporation, 729 Seventh Av, New York City Write for address of exchange nearest you

. of mines. U.S. Department of interior, Bureau of mines experiment Bur. of mines. station, 4800 Forbes St, Pittsburgh, Pa. (R. A. Wood, in charge)
Write for address of exchange nearest you

Bur. of reclamation. U.S. Department of the interior, Bureau of reclamation, Washington, D.C.
Lecture of about 3,500 words has been prepared to accompany all except those in the "Drainage" set

Burton Holmes. Burton Holmes films, Library dept., 7510 N. Ashland Av, Chi-

L. H. Caldwell, Gardiner elementary school, Wichita, Kan.

Canadian gov't. Canadian government mo-tion picture bureau, Ottawa, Ontario, Canada Write for address of exchange nearest ou. These films may be purchased if

desired

Canadian nat. ry. Canadian national railways motion picture library, 673 Fifth Av, New York City

Castle. Castle films, R.C.A. bldg., Rockefeller center, New York City
Cereal soaps. Cereal soaps company, inc.,
334 E. 27th St, New York City
Loan film to schools and institutions
only. Will not sell or rent
Chicago. Pools Island and Pools a relivous

only. Will not sell or rent Chicago, Rock Island and Pacific railway company, Room 723, LaSalle St sta-

tion, Chicago, Ill.
Chrysler. Chrysler sales corporation, 125
West End Av, New York City
Church. Frank R. Church films, 829 Har-Chrysler.

rison St, Oakland, Cal.
Write for address of exchange nearest you

king. Floyd W. Cocking, Roosevelt junior high school, San Diego, Cal. Cocking.

Cunard. Cunard white star line, Advertising dept., 25 Broadway, New York City
Films of this company are not available for classroom use. They are sent to adult groups only

Dairymen's league. Dairymen's league cooperative assn., inc., 11 W. 42d St, New

York City
Deimer. M. E. Deimer photographic laboratory, Madison, Wis.
De Laval separator company,

165 Broadway, New York City
DeVry. Herman A. DeVry, inc.,
Center St, Chicago, Ill.
Correspondence is invited regasound versions of their films

Du World. Du World pictures, inc., 729

Seventh Av, New York City
Films are primarily for rent but will
sell restricted number of prints of some
Dynamic. Dynamic pictures, 729 Seventh
Av, New York City

Eastman. Eastman kodak company, Teaching films division, Rochester, N.Y.

Edited pictures. Edited pictures system, inc., 330 W. 42d St, New York City Primarily a rental distributor but have access to or own some of the negatives

DIRECTORY OF PRODUCERS

Edwards. Edwards productions, 729 Seventh Av, New York City

Erpi. Erpi picture consultants, inc., 250 W. 57th St, New York City

Field & stream, 578 Madison Av. New York City

Films are obtained by subscribing to the Field and stream magazine
Film classic exchange. F. C. pictures cor-

poration, 505 Pearl St, Buffalo, N.Y.

Films of commerce. Films of commerce company, inc., 35 West 45th St, New York City

Fitzpatrick. FitzPatrick pictures, inc., 729 Seventh Av, New York City

Ford. Ford motor company, Department of photography, 3674 Schaefer Rd,

Dearborn, Mich.
Fruit of the loom. Fruit of the loom mills, 715 Hospital trust bldg., Providence, R.I.

Gaumont British. Gaumont British picture corporation of America, 1600 Broad-way, New York City Write for address of exchange nearest

pany, Visual instruction section, Publicity dept., 1 River Rd., Schenectady, N.Y. General

16mm films may be secured from the New York office, 570 Lexington Av, as well as from Schenectady

German tourist. German tourist information office, 665 Fifth Av, New York City

Goodyear tire & rubber com-Goodyear. pany, inc., Motion picture dept., Akron,

Grace line, 10 Hanover Sq, New York City Gutlohn. Walter O. Gutlohn, inc., 35 W. 45th St, New York City Write for address of exchange nearest

Harvard. Harvard film service, Cambridge, Mass.

Guy D. Haselton, 7901 Santa Haselton. Monica Blvd, Hollywood, Cal.

nry st. Henry street visiting nurservice, 99 Park Av, New York City Henry st. nurse

Hercules powder company, inc., Advertising dept., Wilmington, Del.
Hill. Dr. David B. Hill, First national
bank bldg., Salem, Ore.

Hollywood film enterprises. Hollywood

film enterprises, inc., 6060 Sunset Blvd., Hollywood, Cal. Hudson. Hudson college of commerce and

finance, Chamber of commerce bldg., Jersey City, N.J.

Imperial distributing corp. Imperial distributing corporation, 729 Seventh Av, New York City

Inst. cinema serv. Institutional cinema service, inc. 130 W. 46th St, New York

Japan tourist. Japan tourist bureau, 551 Fifth Av, New York City

John Hancock. John Hancock mutual life insurance company, Boston, Mass.

Kerr. Kerr glass manufacturing corpora-tion, Sand Springs, Okla.

Apply at above address if you live east of the Rockies; if you live west of the Rockies apply 718 Title insurance bldg., Los Angeles

Kodascope. Kodascope libraries, inc. 33 W. 42d St, New York City Write for address of exchange nearest

McCrum. Dr. Thomas B. McCrum, 4144 Charlotte St, Kansas City, Mo.

Melville. Melville shoe corporation, Advertising dept., 555 Fifth Av, New York City

Metropolitan life. Metropolitan life insurance company, 1 Madison Av, New York City

Metropolitan museum. Metropolitan museum of art, Fifth Av & 82d St, New York City
Also have the Yale chronicles of America photoplays series for circulation in the public schools of New York city only

Museum of modern art, 485 Madison Av, New York City

Nat. dairy council. National dairy council, 221 N. LaSalle St, Chicago, Ill. Nat. park serv. U.S. Department of in-

terior, National park service, Washington, D.C.

Nat. safety council. National safety council, 20 N. Wacker Drive, Chicago, Ill. Nat. soc. for the prevention of blindness.

National society for the prevention of blindness, inc., 50 W. 50th St, New

York City
The film loaned by this organization may be bought from Eastman

Nat. tuberculosis assn. National tuberculosis association, 50 W. 50th St, New

York City

Requests should be directed to state and

local tuberculosis associations Navy recruiting serv. U.S. Navy recruiting bureau, Officer in charge, Federal bldg., Washington & Johnson Sts, Brooklyn,

Washington & Johnson Sts, Brooklyn, N.Y.
Will not send for private and home projection and only to organizations having good equipment and experienced operators. Requests for films should be addressed to the Officer in charge of the nearest U.S. Navy recruiting service
Northern Pacific ry. Northern Pacific railway, Passenger traffic dept., St Paul,

Minn.

s. Otis elevator company, Publicity division, 260 Eleventh Av, New York City

Pennzoil company, Advertising Pennzoil.

dept., Oil City, Pa.

Progress film. Progress film company,
2120 Lincoln Park West, Chicago, Ill.

ker. Quaker oats company, School health service, 141 W. Jackson Blvd, Chicago, Ill.

Religious motion picture found. Religious motion picture foundation, inc., 140
Nassau St, New York City
Rhodes. James H. Rhodes & company,
153 West Austin Av, Chicago, Ill.

DIRECTORY OF PRODUCERS

Roosevelt house. Roosevelt house library and museum, 28 E. 20th St, New York Demand for these films is heavy in October and reservations should be made far in advance

Rothacker. Douglas D. Rothacker, 729 Seventh Av, New York City

Scientific film. Scientific film company, 20 Lanvale Av, Daytona Beach, Fla. Shields. Wendell G. Shields, 1270 Sixth Av, New York City

Singer. Singer sewing machine company, Singer bldg., New York City Soc. for visual educ. Society for visual education, inc., 327 S. LaSalle St, Chi-

cago, Ill.
Stone & Webster. Stone & Webster engineering corporation, 49 Federal St,
Boston, Mass.
Service discontinued. Films may be obtained from YMCA.
Sutherland. E. W. Sutherland, Ashland

folk school, Grant, Mich.

Tanners' council of Tanners' council. America, 100 Gold St, New York City

United air lines, 221 N. LaSalle St, Chi-

cago, Ill.
Call nearest traffic office or write general traffic office at the above address
U.S. agric. U.S. Department of agriculture, Office of motion pictures, Washington, D.C.
These films may be purchased if desired
U.S. rubber. U.S. rubber company, 1790
Broadway, New York City

. steel. U.S. steel corporation, 71 Broadway, New York City Write for address of exchange nearest U.S.

Univ. of Chicago press. University of Chicago press, 5750 Ellis Av, Chicago

Viscose. Viscose company, 200 Madison Av, New York City

Wadsworth. Mason Wadsworth, 551 Fifth Av, New York City Western electric. Western electric com-pany, inc., 195 Broadway, New York Write for address of exchange nearest

you Westinghouse. Westinghouse electric and

manufacturing company, East Pittsburgh, Pa.

preservation soc. Wild flower preservation society, 3740 Oliver St, Washington, D.C. Wild flower preservation soc.

Winston. John C. Winston company, 1006-1016 Arch St, Philadelphia, Pa.

Women's bur. U.S. Department of labor, Women's bureau, Washington, D.C. Will secure sale copies from firms mak-ing them for those interested

Yale university press film service, 386 Fourth Av, New York City
The entire series of Yale chronicles of
America photoplays series may be bought at a discount

YMCA. Nation council of Young men's Christian associations, Motion picture bureau, 347 Madison Av, New York City; 19 S. LaSalle St, Chicago

Directory of Distributors

Although the following names constitute neither a complete nor an approved list, they are among the better known companies and organizations dealing in films for educational purposes. They are listed by locality because many of them distribute within their own or neighboring states only. To learn the exact status film users must write direct to the organization in which they are interested.

Arizona

University of Arizona Tucson

California

Dennis, William M.
2506½ W. 7th St.
Los Angeles
Hollywood Cine Supply Company
1426 N. Beachwood Drive
Hollywood
Premier Pictures, Inc.
1906 S. Vermont Av.
Los Angeles
University of California
Berkeley
Visual Text & Equipment Company
2814 Council St.
Hollywood

Canada

Regina Photo Supply, Ltd. Regina, Sask.

Colorado

Akin & Bagshaw, Inc. 1425 Williams St. Denver University of Colorado Boulder

Hawaii

University of Hawaii Honolulu

Illinois

Bass Camera Co.
179 W. Madison St.
Chicago
Bell & Howell
1801 Larchmont Av.
Chicago
Central Camera Co.
230 S. Wabash Av.
Chicago
Dudley, William H.
736 S. Wabash Av.
Chicago
Ideal Pictures Corporation
30 E. Eighth St.

Chicago

Roake Film Service
901 N. University
Peoria
University of Illinois
Urbana
Venard, C. L.
702 S. Adams St.
Peoria
World Service
740 Rush St.
Chicago
YMCA
Motion Picture Bureau
19 South La Salle St.
Chicago

Indiana

South Bend Bait Company South Bend University of Indiana Bloomington

Iowa

Iowa State College Ames University of Iowa Iowa City

Kansas

Hall Stationery Co. 623 Kansas Av. Topeka University of Kansas Lawrence

Kentucky

University of Kentucky Lexington

Louisiana

Harcol Motion Picture Industries 610 Baronne St. New Orleans

Massachusetts

Atlantic Motion Picture Service 108 Massachusetts Av. Boston Boston Museum of Fine Arts Boston Cambridge Museum for Children 5 Jarvis St. Cambridge

DIRECTORY OF DISTRIBUTORS

Free Films Service

Boston University School of Education

International Educational Pictures, Inc. 40 Mt. Vernon St. Boston

Massachusetts. Division of university extension

State House

Boston

Visual Education Service

470 Stuart St.

Boston

Wholesome Film Service

48 Melrose St. Boston

Michigan

Community Picture League 2539 Woodward Av.

Detroit

Kent Scientific Museum Grand Rapids Metropolitan Motion Picture Co.

1745 E. Grand Blvd.

Detroit

Public Library & Museum

Kalamazoo

Minnesota

St. Paul Institute Visual instruction Service

St. Paul

Service complete with projector to Twin cities only
University of Minnesota

Minneapolis

Missouri

Educational Museum 3325 Bell Av.

St. Louis

University of Missouri

Columbia

New Jersey

New Jersey State Museum

Trenton

Stewart's School Films

21 Liberty St.

Trenton

New York

Allen Studios, Inc.

80 East Av.

Rochester

American Museum of Natural History

77th St. & Central Park West New York City Auten, Harold 1540 Broadway

New York City Cine Classic Library 1041 Jefferson Av Brooklyn

Edited Pictures System, Inc. 330 W. 42d St. New York City

Films, Inc. 330 W. 42d St. New York City

Garrison Film Distributors, Inc.

729 Seventh Av. New York City Institutional Cinema Service, Inc.

130 W. 46th St. New York City Kodascope Libraries, Inc.

33 W. 42d St.
New York City
New York State Department of Health

Albany

New York Zoological Park
185th St. & Southern Blvd.
New York City
Available to schools of New York city

Nu-Art Filmco 145 W. 45th St. New York City Presbyterian Church

Board of Foreign Missions

156 Fifth Av.

New York City

Principal Distributing Corporation
1501 Broadway
New York City
Write for address of exchange nearest you

School Films Service, Inc. 55 W. 42d St. New York City Topical Pictures

18 E. 48th St.
New York City
United Projector & Film Corporation
228 Franklin St.

Buffalo

Willoughby 110 W. 32d St. New York City

YMCA

Motion Picture Bureau 347 Madison Av.

New York City

North Carolina

University of North Carolina Chapel Hill

North Dakota

Gibson, Angela Murray Casselton

Ohio

Church and School Film Service 1635 Central Parkway

Cincinnati

Department of Education

Columbus Manse Library

409 McAlpin Av. (Clifton)

Cincinnati

Twyman, Alan B. Post Office Box 44

Dayton

Oklahoma

University of Oklahoma Norman

DIRECTORY OF DISTRIBUTORS

Oregon

Hill, Louis 814 S.W. Sixth Av. Portland

State College of Oregon Corvallis YMCA

Motion Picture Bureau 925 N.W. 19th Av. Portland

Pennsylvania

Classroom Film Library
W. S. Smith
E. Main St. & Washington Av.
Carnegie
Erie Public Library and Erie Po

Erie Public Library and Erie Public Museum

Erie Pinkney Film Service 1028 Forbes St. Pittsburgh

Presbyterian Church. Board of Christian

Education
Witherspoon Bldg.
Philadelphia
St. Thomas College
Scranton

Williams, Brown & Earle, Inc. 918 Chestnut St. Philadelphia

South Dakota

University of South Dakota Vermillion Tennessee

Southern Film Library Knoxville

Texas

University of Texas Austin

Virginia

University of Virginia Charlottesville

Utah

Brigham Young University Provo

Washington

State College of Washington Pullman

Wisconsin

Milwaukee Public Museum Milwaukee University of Wisconsin Madison







